ANNUAL MEETING
HOTEL STATLER, BOSTON, MASS.
SEPTEMBER 28th & 29th, 1943

Volume 57 | September, 1943 | $4.00 a Year
Number 3 | Pages 173-286 | $1.25 a Number

JOURNAL

OF THE

New England Water Works Association

ISSUED QUARTERLY

Published by
THE NEW ENGLAND WATER WORKS ASSOCIATION
613 Statler Building, Boston, Mass.

Entered as second-class matter September 23, 1903, at the Post Office at Boston, Mass., under Act of Congress of March 3, 1879
Copyright, 1943, by the NEW ENGLAND WATER WORKS ASSOCIATION

OFFICERS
OF THE
New England Water Works Association
1942-1943

PRESIDENT

*Harold L. Brigham, Superintendent, Water & Sewage Commission, Marlboro, Mass.
(Term expires September, 1943)

VICE-PRESIDENTS

Horace L. Clark, Superintendent, Water District, Sanford, Maine.
(Term expires September, 1943)

Karl R. Kennison, Chief Engineer, Metropolitan District Water Supply Commission, Boston, Mass.
(Term expires September, 1944)

DIRECTORS

Harold W. Griswold, Deputy Manager and Deputy Chief Engineer, Water Bureau, Metropolitan District, Hartford, Conn.
(Term expires September, 1943)

Arthur L. Shaw, Partner, Metcalf & Eddy, Consulting Engineers, Boston, Mass.
(Term expires September, 1944)

Donald C. Calderwood, Engineer, Pennichuck Water Works, Nashua, New Hampshire.
(Term expires September, 1945)

PAST PRESIDENTS

Leland G. Carlton, Superintendent, Municipal Water Works, Springfield, Mass.

Francis H. Kingsbury, Senior Sanitary Engineer, Massachusetts Department of Public Health, Boston, Mass.

SECRETARY

Frank J. Gifford, Cambridge, Mass.

TREASURER

Frank J. Gifford, Cambridge, Mass.

EDITOR

Gordon M. Fair, 112 Pierce Hall, Harvard University, Cambridge, Mass.

THE Association was organized in Boston, Mass., on June 21, 1882, with the object of providing its members with means of social intercourse and for the exchange of knowledge pertaining to the construction and management of water works. From an original membership of only TWENTY-SEVEN, its growth has prospered until now it includes the names of 800 men. Its membership is divided into six classes, viz.:

A Member shall be an officer or employee of a public or private water works, an engineer, chemist or other person qualified to aid or interested in the advancement of knowledge relative to water works.

An Honorary Member shall be a person of acknowledged eminence in some branch of water supply or of engineering.

A Junior shall be not less than eighteen years nor more than twenty-five years of age, a student or connected with water supply work.

An Associate shall be either a person, firm or corporation engaged in manufacturing or furnishing materials or supplies for the construction or maintenance of water works.

A Corporate Member shall be either a Water Board, Commission, Company or Municipal Corporation.

The initiation fees and annual dues are as follows:

	Initiation Fees		*Annual Dues*
Members	$ 3.00	Members	$ 6.00
Juniors	1.00	Juniors	3.00
Associates	10.00	Associates	20.00
Corporate Members	10.00	Corporate Members	10.00

This Association has at least eight regular meetings each year, of which five are held in Boston, one in northern New England, one in southern New England, and one, the annual convention, held in September on such date as the Executive Committee may designate.

*Deceased.

Lock Joint Pipelines Speed Work on Synthetic Rubber Plants

SYNTHETIC RUBBER is vital to the war effort... and water supply is vital to the production of synthetic rubber.

Reinforced Concrete Pressure Pipe is supplying the immediate need for pipelines, and by being "tailor-made" to fit the job, is conserving thousands of tons of steel urgently needed for production of armaments.

Probably in no other type of work are there so many special fittings, elbows, tees or wyes required as in the pipelines serving synthetic rubber plants – yet each one of these can be quickly and readily supplied in standard Lock Joint designs.

◆ ◆ ◆

Whether your project is large or small, your 'phone call, telegram, cable or letter to any of our offices will bring a prompt reply.

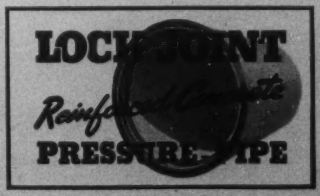
SCOPE OF SERVICES. *Lock Joint Pipe Company specializes in the manufacture and installation of Reinforced Concrete Pressure Pipe for Water Supply Mains as well as Concrete Pipe of all types for Sanitary Sewers, Storm Drains, Culverts and Subaqueous lines.*

LOCK JOINT PIPE COMPANY

Established 1905

AMPERE, NEW JERSEY

Denver, Colo. • Chicago, Ill. • Kenilworth, N. J. • Kansas City, Mo. • Rock Island, Ill. • White Plains, N.Y. • Valley Park, Mo. • Cleveland, Ohio • Hartford, Conn. • Navarre, Ohio



No Rationing of
ACCURACY

No Limitation on
PERFORMANCE

WITH

THE *Empire* VICTORY METER

A FULLY PROTECTED IRON CASE OSCILLATING PISTON METER

A FULLY PROTECTED IRON CASE NUTATING DISC METER

THE PITTSBURGH IRONSIDE METER

PURCHASERS of so-called war model meters will find top value in the Empire Victory and Pittsburgh Ironside. The accuracy and efficiency of these meters is every bit as good as that of their bronze case predecessors built during peace time. There has been no sacrifice made in the quality of the inner working mechanism—where quality in a water meter really counts.

The Empire Victory Meter employs the time-tested, oscillating piston principle of measurement, using the famous Empire balanced piston. The Pittsburgh Ironside Meter is of the popular disc type, having the identical inner working parts that have been so thoroughly proven in thousands of Pittsburgh Arctic and Tropic Meters.

Both of these meters have cast iron cases that are treated, coated and *laboratory tested* to resist rust and corrosion. After the emergency is over, they may be readily converted to bronze cases if desired. Both meters are fitted with the Pittsburgh-National developed molded glass register box which completely encases and protects the register and *provides a clear and undistorted view of the dial* for ease in reading.

Empire Victory and Pittsburgh Ironside Meters are accurate, durable measuring instruments—meters designed not only for war but for wear. They may be purchased with full confidence in their ability to provide the fullest measure of meter value.

DON'T REPLACE WHEN YOU CAN REPAIR!
Our country's interests come first. An intelligent program of meter reconditioning and maintenance can, in many cases, largely supplant the need for new meters. All Pittsburgh-National meters are economical to repair and replacement part stocks are adequate.

PITTSBURGH-NATIONAL METERS

THE MOST COMPLETE LINE OF WATER METERS IN THE WORLD

PITTSBURGH EQUITABLE METER COMPANY

MERCO NORDSTROM VALVE COMPANY

Main Offices, Pittsburgh, Pa.

NATIONAL METER DIVISION Brooklyn, N. Y.

Pipe Lines in the Eagle's Nest

Photo by U. S. Army Air Forces

FUELING our fighters and bombers at home and at our advanced bases involves a multitude of small pipe lines.

From underground fuel caches, usually far removed from the flying line, high octane gas travels via pipe line to the field loading facilities.

In Newfoundland, Iceland, Alaska, the Caribbean, on far-flung Pacific isles and in remote aerial outposts, Dresser speed, simplicity and flexibility make possible the fast installation of these "life-lines."

Dresser clamps and sleeves hasten their repair in the event of damage by enemy attack.

This Air Corps insignia is substantially the same form adopted by the Army during World War I. The same design is also used for aviation cadets' garrison caps.

There are also many different army aviation badges. All of these utilize the wings but the center design differs, there being specific insignia for Command Pilots, Senior Pilots, Liaison Pilots, Observers, Bombardiers, Navigators, Flight Surgeons, etc.

Thus, the Dresser products which have contributed so materially to peace-time transportation of gas, water and oil, are proving equally essential in keeping our eagles aloft.

Dresser Manufacturing Co., Bradford, Pa.

DRESSER

Pipe Couplings, Repair Devices, Rings, Wheels, and Forgings for War

Table of Contents

PAGE

Measures Taken at Falmouth, Mass., to Control "Red Water" and Tuberculation of Mains. By E. Sherman Chase 173

New Trends in Ground Water Development. By Ross Nebolsine 186

Rainfall in New England, Part III, Rainfall in Rhode Island, Connecticut, and Eastern New York. By George V. White 201

Proceedings:

May, 1943, Meeting 260

Preliminary Report of the Committee on Post War Activities 261

New England Water Works Association
ORGANIZED 1882

VOL. LVII September, 1943 No. 3

This Association, as a body, is not responsible for the statements or opinions of any of its members

MEASURES TAKEN AT FALMOUTH, MASS., TO CONTROL "RED WATER" AND TUBERCULATION OF MAINS

BY E. SHERMAN CHASE*

[*Read March 18, 1943.*]

Since 1929, the Water Department of Falmouth has carried out measures to reduce "red water" and tuberculation troubles. Red water troubles were particularly serious in the winter of 1928-29.

Water Supply of Falmouth. The supply is pumped from Long Pond through an intake pipe which extends about 75 ft. out from the shore and terminates at a point where the water is 16 ft. deep. The superficial land area tributary to Long Pond is approximately one square mile, and the water surface of the pond is about one-third of a square mile. The quantity of water obtained from Long Pond is so great in proportion to the surface watershed tributary to it that it is evident that the supply is derived mainly from ground water sources intercepted by the depression in which the pond is located.

There are over 100 miles of mains in the distribution system, and these mains cover an extensive area. The population supplied approximates 5,500 in winter and 22,000 in summer. It is estimated that the storage capacity of the mains is about 1,000,000 gal. which is equivalent to about two days' supply during the winter as compared with less than one day's consumption during the summer.

Problems. Prior to the introduction of the remedial measures described later, the water delivered to the consumers was frequently high in color and iron. At such times the water was most displeasing to the senses and distinctly unsatisfactory for laundry and other household uses. These troubles occurred most frequently in the wintertime, although subsequent to cleaning in 1927 of the mains leading to Woods Hole the water delivered in that village continued to be discolored throughout the summer.

*Partner, Metcalf & Eddy, Consulting Engineers, Boston, Mass.

In addition to the red water troubles, the corrosive properties of the supply have been such that tuberculation of the mains is extensive and corrosion and plugging of house services have been prevalent.

Causes of trouble. Analyses show that the water as pumped from Long Pond is low in both color and iron. However, the pond water is also low in dissolved mineral solids and is very soft. In fact, there are only two or three public water supplies in Massachusetts as free from hardness as is the supply taken from Long Pond. This freedom from constituents that would normally form protective coatings on the interior of mains and services and the normally high dissolved oxygen content of the water result in the unusually corrosive quality of the supply. Table 1 gives a typical analysis of the water directly from Long Pond.

TABLE 1.—TYPICAL ANALYSIS OF LONG POND WATER

Sample	Surface of Pond
Month Collected	April
Color (Platinum standard)	6 p.p.m.
Odor—Cold	None
—Hot	Very slight woody
Free carbon dioxide as CO_2	3.0 p.p.m.
Alkalinity-Bicarbonate as $CaCO_3$	5.0 p.p.m.
Total as $CaCO_3$	5.0 p.p.m
Hardness as $CaCO_3$	8.0 p.p.m
Iron as Fe	0.0 p.p.m.
Dissolved Oxygen	10.0 p.p.m.
Hydrogen-ion Concentration (pH index)	6.7

Water Consumption. Reference has been made to the difference between winter and summer consumption. This is due in large measure to the fact that the normal population of Falmouth is increased very greatly in the summertime by transients. Table 2 gives the water consumption by months for 1941, a year more typical of normal conditions than 1942 when the population had been influenced by the proximity of Army establishments in the vicinity.

Water Main Cleaning. In addition to the corrosive quality of the supply resulting in rusty water being delivered to consumers, extensive tuberculation of the mains has caused serious loss of carrying capacity. For example, friction tests on the mains supplying Woods

TABLE 2.—WATER CONSUMPTION IN FALMOUTH IN 1941 BY MONTHS

Month	Daily consumption mil. gal.	Per cent of Yearly Average	Month	Daily consumption mil. gal.	Per cent of Yearly Average
Jan.	0.745	81	August	1.320	144
Feb.	0.722	79	Sept.	1.007	110
Mar.	0.743	81	Oct.	0.684	75
Apr.	0.807	88	Nov.	0.650	71
May	0.942	103	Dec.	0.642	70
June	1.047	114			
July	1.690	184	Average	0.920	

Hole, made by the Pitometer Company in 1932, indicated that the capacity of these mains was about one-half that of new clean pipe of the same nominal diameter.

To restore the carrying capacity of the mains many thousand feet of pipe have been cleaned in recent years. The years and lengths cleaned are summarized in Table 3.

TABLE 3.—FEET OF WATER MAINS CLEANED AT FALMOUTH

Year	Diameter-Inches 12	10	8	6	4	All
1926	641	13,306	15,172	15,671	——	44,790
1927	15,014	18,325	16,442	8,768	1,035	59,584
1930	——	——	11,788	11,916	9,238	32,942
1931	——	——	23,705	4,981	1,254	29,940
1932	——	——	——	1,500	——	1,500
1933	12,147	29,996	10,282	5,611	4,405	62,441
1936	——	——	——	——	663	663
1937	6,113	8,681	14,367	15,491	——	44,652
1938	3,650	13,802	30,208	32,726	6,847	87,233
1940	13,005	11,902	16,497	20,125	4,366	65,895
1941	——	——	7,930	11,884	3,541	23,355
1942	2,197	13,802	31,305	16,296	1,035	64,635

Following cleaning, there appears to be an increase in complaints regarding rusty water in those sections of the town served by the cleaned mains, and this condition of rusty water continues for several months after the cleaning operations. Cleaning, however, has resulted in improving the capacity of the mains for a while but there is

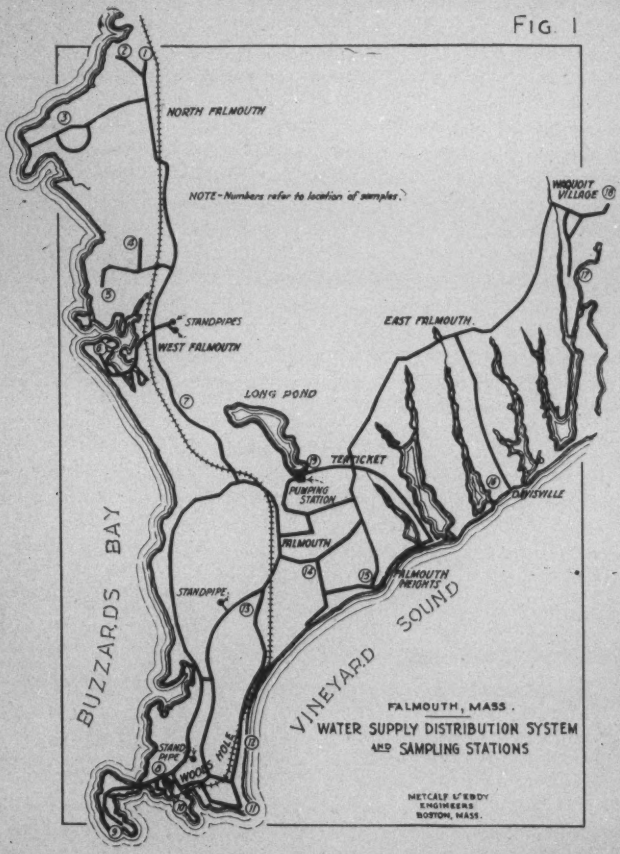


FIG. 1
NORTH FALMOUTH
NOTE-Numbers refer to location of samples.
WAQUOIT VILLAGE
STANDPIPES
WEST FALMOUTH
EAST FALMOUTH
LONG POND
TEATICKET
PUMPING STATION
FALMOUTH
DAVISVILLE
FALMOUTH HEIGHTS
STANDPIPE
BUZZARDS BAY
VINEYARD SOUND
STAND PIPE
WOODS POLE
FALMOUTH, MASS.
WATER SUPPLY DISTRIBUTION SYSTEM
AND SAMPLING STATIONS
METCALF & EDDY
ENGINEERS
BOSTON, MASS.

FIG. 1.

considerable question as to how long this improvement lasts. For example, mains were cleaned in the Falmouth Heights section in 1930, and in the summer of 1937 attempts to flush a 4-in. main in that district indicated that the main was nearly completely plugged, probably with tubercles and rust.

Flushing and Bleeding of Mains. In order to help correct conditions of rusty water, flushing of mains has been resorted to, and at certain dead ends continuous bleeding of small amounts of water has been practiced. Flushing has the disadvantage of stirring up large quantities of sediment and temporarily makes the quality of the water worse.

Bleeding corrects stagnation conditions near dead ends but is of little value in removing deposited material.

Analytical Investigations. In 1929, samples were collected for analysis at many points on the distribution system. The locations of the samples are shown in Fig. 1. The pond water before entrance to the system was found to be high in dissolved oxygen, low in alkalinity, carbon dioxide, iron, and color, and with a low pH. The analyses of the samples at the different points on the distribution system showed that in general as the time of contact with the pipes increased, the dissolved oxygen decreased and the iron content increased, the oxygen being used up in the formation of iron rust. One distribution system sample had an iron content of 38 p.p.m. Out of the 18 distribution system samples 14 contained iron in excess of 1.0 p.p.m. (see Table 4).

Samples of the tubercles forming on the inside of the water mains were also examined. These tubercles were yellowish brown in color and contained a small number of black particles. The yellowish brown material was soft and spongy. The black particles were hard and brittle and as they occurred next to the pipe, they were probably bits of asphaltic paint. An analysis of the material constituting the tubercles is shown in Table 5.

This anaylsis indicates that the tubercles were composed mainly of soft deposits of iron oxides and hydroxides together with a small quantity of silica. This composition is not at all unusual.

Laboratory Tests of Corrective Treatments. Laboratory tests were carried out in 1929 to determine the feasibility of adding certain harmless mineral substances to the water to correct its corrosive quali-

TABLE 4.—ANALYSES OF SAMPLES FROM DIFFERENT POINTS ON DISTRIBUTION SYSTEM OF FALMOUTH WATER WORKS. BEFORE AND AFTER LIME TREATMENT

No.	District	pH		Color (parts per million)		Alkalinity (parts per million)		Iron (parts per million)	
		1929	1942	1929	1942	1929	1942	1929	1942
1.	N. Falmouth	7.0	9.71	6	17	9.0	13.2	0.25	0.30
2.	Megansett	7.4+	—	25	—	10.0	—	2.20	—
3.	Silver Beach	7.4+	—	23	—	12.0	—	1.30	—
4.	Nemasket Beach	7.2	—	12	—	5.0	—	10.0	—
5.	W. Falmouth	7.0	8.05	25	35	5.0	8.8	1.40	0.10
6.	Chappaquoit	6.9	—	23	—	10.0	—	2.00	—
7.	W. Falmouth	7.4	9.16	15	8	14.0	10.0	0.25	Trace
8.	Woods Hole	7.0	—	20	—	6.5	—	1.10	—
9.	Woods Hole	7.4+	—	23	—	9.0	—	1.10	—
10.	Woods Hole	6.9	10.13	18	23	7.0	19.0	1.10	0.30
11.	Woods Hole	7.2	—	10	—	7.5	—	0.20	—
12.	Vineyard Sound	6.6	—	23	—	9.5	—	12.0	—
13.	Moors	6.4	—	18	—	10.5	—	38.0	—
14.	Falmouth Center	7.2	9.63	8	22	9.0	14.0	1.10	0.24
15.	Falmouth Heights	6.2	9.88	8	19	7.5	17.5	3.80	0.30
16.	Davisville	7.8	—	10	—	8.0	—	0.60	—
17.	Seapuit	7.4	9.13	27	20	10.0	9.2	3.60	0.30
18.	Waquoit	7.4	9.45	5	7	9.0	11.8	2.10	0.16

1929 samples collected in March.

1942 samples Nos. 1, 10, 14, and 18 collected in March; sample No. 15 collected in April, sample No. 5, colected in May, sample No. 7 collected in December, sample No. 17 collected in October.

TABLE 5.—ANALYSIS OF TUBERCLES FROM FALMOUTH MAINS

Constituent	Per Cent (Dry Basis)
Loss on Ignition	10.9
Iron and Aluminum (as Fe_2O_3 and Al_2O_3)	73.2
Calcium as CaO	none
Carbonate as CO_3	none
Sulfate as SO_4	less than 1%
Silicate as SiO_2	11.6

ties. Three substances were tried, namely: soda ash, sodium silicate, and hydrated lime. All of these substances reduced the corro-

sive effect of the water but hydrated lime was by far the most efficient.

The tests consisted in placing equal lengths of pure iron wire into bottles containing equal quantities of the Long Pond water as collected at the pumping station and allowing these bottles to stand at room temperature. To the water in all but one of the bottles various proportions of the three substances referred to were added at the beginning of the tests. At the end of the tests, observations were made of the condition of the pieces of wire with respect to rust formation and of the condition of the water as regards discoloration.

With sodium silicate, the tests indicated but a slight decrease in corrosive action even with the addition of 20 p.p.m. A similar result was obtained with soda ash. Hydrated lime, however, gave promising results as shown by the following table summarizing the test with this material.

TABLE 6.—EFFECT OF HYDRATED LIME UPON CORROSIVE ACTION OF FALMOUTH WATER

Quantity of Hydrated Lime Added		Iron in top water—p.p.m		
Parts per million	Pounds per mil. gallon	after 18 hr.	after 4 days	Soap hardness—p.p.m.
0	0	17.0	64.0	6.3
1	8.3	—	60.0	—
3	24.9	—	30.0	—
5	41.5	—	30.0	12.7
7	58.1	—	17.5	—
10	83.3	0.9	3.0	16.9
15	124.8	0.0	1.0	18.9

After standing, the samples containing from zero to 7 p.p.m. of hydrated lime were colored a reddish or yellowish brown, decreasing in intensity with increasing quantities of lime. The samples containing 10 p.p.m. and 15 p.p.m. of lime were clear and showed no change in appearance as compared with the water that had been standing in a glass container out of contact with iron.

In 1937, an attempt was made, but without success, to duplicate the above test. The reason for this failure was never discovered.

Lime Treatment. The addition of lime or soda ash to reduce

the corrosiveness of waters is a well-recognized method of treatment and has been in use at a number of municipalities in Massachusetts including Canton, Hingham, Milford, Needham, Newton, Scituate, Somerset, Ware, and Wellesley.

Following the laboratory tests previously described, equipment for the application of lime to the water pumped from Long Pond was first installed in 1929. The equipment by means of which the lime is applied consists of an ingenious home-made apparatus which controls the flow of milk-of-lime into the suction pipe leading to the pump. The rate of application of lime has been generally about 85 lb. per m.g. of water pumped. This treatment completely neutralizes the small amount of free carbon dioxide in the water and results in the production of a small amount of carbonate alkalinity and an increase in hardness to about 15 or 20 p.p.m. The resultant hardness is about equal to that of the Boston Metropolitan supply.

Although lime treatment has not prevented tuberculation, it has materially reduced the red water troubles. It is essential, however, to apply sufficient lime to maintain a pH of approximately 9.0 in the treated water.

Analytical Data. Monthly samples for analysis have been collected at four different points on the distribution system since January 1931 to serve as a guide in the application of the lime. The analytical data thus obtained are too numerous to reproduce in this paper except for certain of the results given in Table 4 for comparison with results obtained at corresponding locations in 1929 prior to the introduction of lime treatment. The table shows clearly the improvement as regards iron content in 1942 as compared with 1929. Of eight samples collected at about the same locations under reasonably comparable conditions in 1929 and 1942, the average iron content in the earlier year was 1.70 p.p.m. in contrast with 0.21 p.p.m. in the later year.

On one or two occasions the use of lime has been discontinued temporarily. At these times, there has been a recurrence of complaints of rusty water. While lime treatment has not prevented tuberculation, it has helped very materially in reducing complaints.

Chlor-amine Treatment. For many years, the Long Pond supply was used without chlorination due to the naturally excellent bacterial quality of the supply. With the outbreak of war in Europe, the ini-

tiation of National Defense measures in this country, and the establishment of military posts in the vicinity of Falmouth, it seemed wise to install chlorination equipment in 1941. In addition, ammoniation was started partly to help maintain chlorine residuals in the system as a sanitary precaution and partly to see if such residuals would reduce the tuberculation of the mains. No conclusions can be reached on the latter point.

It has been claimed by some investigators that in some cases tuberculation of cast iron mains is caused by certain bacteria and bacteria of this type have been isolated in the past from the Falmouth mains.[1] Attempts in 1937 to isolate such bacteria from tubercles at Falmouth were unsuccessful. This result may be explained by the fact that for several years prior to 1937 the pH of the water passing through the mains was about 9.0, a condition unfavorable for the development of the bacteria. With lime treatment in effect, it seems unlikely that chlor-amine treatment is particularly useful for control of corrosion irrespective of its sanitary value.

Reconditioning of Mains. The fact that lime treatment did not wholly correct corrosion difficulties and the rapid deterioration of the interior of the mains after cleaning led to serious consideration of processes for cleaning and relining mains in the ground. There are two general processes for relining small mains in the ground, about which considerable information is availabe. One process, the Eric, was developed in England and the other, the Tate, in Australia. A third process, being exploited by Stalwarts (Great Britain) before the war is less well known. This process involves cleaning, drying, and the brush application of two coats of bituminous paint by a special brushing mechanism.

The Eric process consists of cleaning the mains, pumping into the clean section a bituminous emulsion, and drawing through the section containing the emulsion, an electrode from which direct current passes through the emulsion and deposits a thin but continuous coating of bitumen upon the walls of the pipe, similar to, but not nearly as thick as, that employed on new mains. This process has been used in England for about 12 or 13 years and considerable data

[1]Tuberculation of Mains as Affected by Bacteria, H. G. Reddick and S. E. Linderman, This Journal, 1932, p. 146.

relative to it have been obtained from English water engineers. The cost of this process under American conditions is somewhat problematical, but including local labor would probably amount to about 30 to 40 per cent of the cost of new mains.

No figures appear to be availabe as to the carrying capacity of pipes reconditioned by this method, but there seems to be no reason why full restoration of capacity would not be obtained. The effective life of the bituminous lining placed by this process, is a somewhat unknown factor, although English experience and opinion indicate that at least 10 years of life are possible.

In the second process, the so-called Tate process,[2] the mains are cleaned, a quantity of cement mortar placed in a cleaned section, and a plunger then pulled through, thereby forcing the mortar to the walls of the pipe and forming a smooth coating. The carrying capacity of the reconditioned mains is substantially increased and they are protected by the lining from further corrosion. Due to the thickness of the lining and the formation of a small flat surface along the invert, the capacity of the relined pipe is not restored to that of a clean but unlined pipe of the same nominal diameter. There is reason to believe, however, that the cement lining thus placed has an indefinite life, and its greater thickness than that of the bituminous lining applied by the

TABLE 7.—PIPE CLEANING AND RELINING BY TATE PROCESS AT FALMOUTH

Year	Pipe Relined		Cost	
	Length ft.	Diameter in.	Total	Per foot
1939	4,987	8		
	2,258	6		
	963	4	$5,166.15	$0.64
1940	5,289	8		
	5,737	10	$8,425.13	0.76
1941	7,500	8		
	6,755	10	$10,744.44	0.76

Eric process, is a distinct advantage. This process has been applied to several thousand feet of mains at Falmouth, and Table 7 gives the

[2]Pipe Cleaning and Lining, Buenos Aires, Bruce Harkness, This Journal, 1939, p. 138.

data relative to the extent of relining done in the past few years, and the cost thereof.

Effect of Cement Lining on Quality of Water. Experience with cement-lined water mains and with cement-asbestos mains has shown an initial increase in hardness and alkalinity of the water passing through such pipes. In order to obtain information as to the effect of lining by the Tate process upon the quality of the Falmouth water and with particular reference to a comparison of four different brands of cement a long-continued test was carried out at the water works shop.

Four standard lengths of 6-in. cast-iron pipe were lined by the Tate equipment, each length being lined with mortar made with a different brand of cement. These pipes were connected to a common header through which water from the distribution system was admitted in parallel to each of the four pipes and drawn off continuously at the opposite end at a rate computed to give approximately one day's contact with the lining. At weekly intervals the effluents from the four pipes and the influent thereto were sampled and analyses made of the samples.

The water entering the test pipes was the regular town supply and had been treated with lime. Consequently, its effect on cement linings would not be quite as great as would be the case with untreated water. However, the object of the test was to determine the effect of the water as actually passing through the town's distribution system. The test was continued for seven months.

The analytical determinations which were made, included color, carbon dioxide, alkalinity, hardness, iron and pH. Of these determinations, that of hardness is the best single index of the effect of the linings upon water quality. Consequently, the hardness results for the weekly samples are shown plotted in Fig. 2, the control sample representing the influent. From this diagram, it will be seen that with the exception of the mortar made with the cement designated as No. 4, the increases in hardness were about the same in the effluent samples. These increases were quite marked at the beginning of the test but decreased as the test was continued, reaching a fairly stable increase of about 10 p.p.m. in about three months. It will be noted that the increases in hardness were somewhat erratic due probably to the

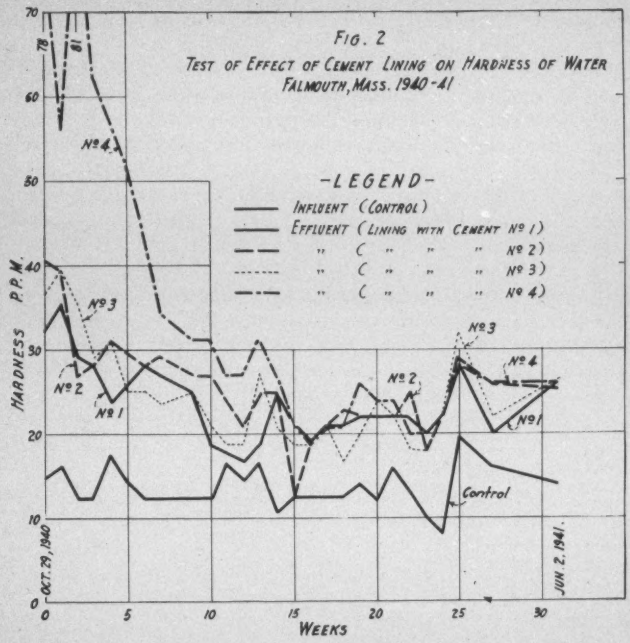


FIG. 2.

difficulty of accurately adjusting the period of contact to exactly one day. On the whole, however, the tests indicate that increase in hardness, due to contact of the water with the cement lining became fairly uniform and moderate in a relatively short time but that some increase was continuing at the end of the seven-month period.

Effect of Relining upon Capacity of Mains. Previous reference has been made to the restoration of carrying capacity in mains cleaned in the ordinary way without relining and the relatively quick loss of this capacity under Falmouth conditions. Relining after cleaning has been put into effect for the first time too recently to provide

comparable data for the mains that have been relined. The following tabulation gives values of "C" in the Hazen-Williams formula in two typical lengths of unlined and relined pipe.

TABLE 8.—VALUES OF "C" IN UNLINED AND RELINED PIPE AT FALMOUTH BY TESTS MADE IN OCTOBER 1940

Nominal diameters	8 inches		
Description	Length Tested Ft.	Value of "C" for nominal diameter	Remarks
Unlined	3,500	58	Laid in 1924-25
Tate relined	1,450	128*	Cleaned and relined in 1940

*Equivalent diameter of cross-section of relined pipe approximately 7.2 inches.

Summary. The following paragraphs summarize this paper.

1. Red water and tuberculation troubles at Falmouth have been due to the exposure of the interior of the mains to relatively long contact with a very soft, well oxygenated water supply.

2. Lime treatment with the maintenance of a pH index of about 9.0 has been a material aid in reducing red water troubles but is not a complete solution of the problem and does not prevent tuberculation.

3. Ordinary water main cleaning removes tubercles and temporarily restores carrying capacity but increases red water troubles and rate of tuberculation.

4. Cleaning and relining substantially restores capacity without increasing red water troubles.

5. Relining decreases somewhat the actual inside diameter of the pipe.

6. Lining increases the hardness of the water materially for the first few weeks after resumption of service and to a relatively minor degree thereafter.

Acknowledgment. Acknowledgment is made of the coöperation of Messrs. John Moore and George Griffin, Superintendent and Registrar respectively of the Falmouth Water Department. Analytical studies were made by Mr. Stuart E. Coburn, Chief Chemist, Metcalf & Eddy.

NEW TRENDS IN GROUND WATER DEVELOPMENT

BY ROSS NEBOLSINE*

Introduction. The principal object of this paper is to describe certain methods that have recently been perfected for collecting ground water from *unconsolidated* formations. The articles on this subject which have appeared in the technical press and the addresses made thus far were connected with specific accomplishments. This is the first time that an attempt will be made to present the subject in a comprehensive manner to a professional society. It is fitting that this should be before the oldest association in its field, and one that has made notable contributions to the advancement of not only the technical and scientific, but also the practical, aspects of water supply.

After a brief history of the earlier achievements in the field of ground-water development, the three inter-related phases of the horizontal screen process involving the solution of *mechanical, construction,* and *engineering* problems will be discussed. These solutions comprise:

1. The invention of a practical method for projecting large diameter screen pipes horizontally into unconsolidated ground.

2. The working out of various phases of design and of practical construction methods for the collectors, particularly the sinking and sealing of caissons in water-bearing material.

3. The collection and correlation of hydrologic data and hydrogeological observations to be able to choose appropriate sites and make fairly accurate estimates of possible water production at a given location.

After a description of a few installations of different size, some data on performance will be presented, including the characteristics of the water produced.

Finally a field for future research will be outlined so that the new methods developed can best be taken advantage of. These really represent new tools and means to be used with the older techniques, for the

*President, Ranney Water Collector Corporation, and Consultant, Ranney Water Collector Corporation of New York, Louisville, Ky.

accomplishment of the larger task of proper use and conservation of water resources as a whole.

Early History of Ground-Water Abstraction Methods. It is frequently useful and always interesting to study the historical background and development of the subject with which one is concerned. In ancient times, during the pastoral period of civilization, the preferred water supply consisted of springs. How important these were can be judged by the frequent references to springs in mythology and folk lore. In many localities springs acquired a quasi sacred character. Monuments, temples, and charitable institutions were built around them, and in a sense these were the first water-purification plants, since they existed to protect the supply for beneficial use by the community.

The location of some of these springs can still be identified, though most of them have long since ceased to flow. This is possibly due to the general process of dessication that has been going on in most of these lands since the dawn of civilization.

Later with the development of agriculture and the founding of towns, surface water of suitable quality was not available at all times. In such cases if there were no springs, or if they were inadequate, dug wells of various types were constructed. About simultaneously, infiltration galleries were also built. Many notable examples of both wells and galleries can still be seen in the Middle East. Some of these, though 2000 years old, are still functioning. The Egyptians used chisels and hand drill bars with mallets to sink wells in rock. It is generally accepted, however that the first deep wells were sunk in China, as it was there that the spring pole free-falling drill was invented.

Probably the earliest known drilled well in Europe was sunk in the twelfth century and was located in the Chartreux Convent at Lilliers in Artois. The geology of that province was favorable to wells. Artois not only gave its name to all flowing wells, but established an export industry consisting of well drillers known throughout Europe for their special skill. One of the first really deep wells, employing casings near the surface was installed at Grenelle in Paris by M. Mulot. It was started in 1833 and took 8 years to complete. It was approximately 1800 ft. deep. The Passy well that followed the Gren-

elle well was supposed to have flowed at first at a rate of 6 m.g.d. With it however appeared the vexatious problem of interference, as the production of the Grenelle well dropped approximately 30 per cent.

The first driven wells, *i.e.* cased wells of small diameter in *unconsolidated* ground, were developed in this country about 90 years ago. It is interesting to find in the very first volue of the Journal of this Association a paper presented in 1887 by Albert Noyes, City Engineer of Newton, Mass., reviewing those early installations. He gives the current production of various tubular wells up to 8 in. in diameter and 500,000 g.p.d. in capacity, mentioning particularly the wells located in the western end of Long Island, a region that since then has been over-pumped. After 1860 a large number of improvements in the design and methods of construction of driven wells were made which cannot be even listed in this brief review.

The next big advance came from the oil industry which contributed the principles of the rotary drill and gravel packing. These methods have been used to an appreciable extent only since the beginning of this century. In a paper read before this Association by Francis M. Kingsbury in 1935, the changes in ground water systems used by the Public Water Supplies in the State of Massachusetts are listed by decades. Prior to 1870 springs were most common. From 1870 to 1880 filter galleries were preferred, from 1880 to 1890 dug wells, from 1890 on tubular wells. In the decade 1920 to 1930 gravel-packed wells made their appearance in Massachusetts. Since then, though these are still outnumbered, the total capacity of the new gravel-packed wells undoubtedly compares favorably with that of the total of ordinary vertical wells. It is curious to see how in a span of only 70 years, Massachusetts, by the favor in which each type of installation was held in turn, has faithfully reflected the various stages of a technological process that took humanity over 50 times as long to actually develop.

The Significance of Adequate Screen Area. Large users of ground water and the actual operators of well systems, have recognized the desirability of developing a large screen area, in spite of the dictum of the standard well formulas that production of a well is not greatly affected by its diameter.

At present, just as 40 years ago, you will find text books giving

a table of values of $\frac{1}{\log \frac{R}{r}}$ for calculating the discharge of a well by the basic formula $Q = K \frac{H^2-h^2}{\log \frac{R}{r}}$ where Q = rate of discharge; $(H-h)$ = draw down; r = radius of well: and R = radius of circle of influence. Thus for R = 1000 ft. and a 2-in. diameter well the value is 0.25; for a 24-in. diameter well 0.37, and for a 40-ft. diameter well 0.59. In other words one is almost led to infer that a well with a 40-ft. diameter screen will have only a little over twice the production of a 2-in diameter well.

The reason for the lack of correlation between formulas and performance is, in this case, that the theory fails to take account of the fact that in practice almost invariably wells are pulled so hard that the flow through the ground near the well and through the screen openings in the casing is of turbulent or quasi-turbulent nature. Turbulence can more easily occur if only a part of the wetted depth is actually effective in transmitting the flow. Under these conditions the draw-down increases approximately as the square of the pumping rate and the ultimate capacity of a small-diameter well is reached sooner than anticipated. The cause is that certain unfavorable properties of fluids make their appearance as soon as the Reynolds Number reaches a certain figure, and in passing it may be noted that it is much lower for porous media than for pipes.

It is true that the well formula does not pretend to include the losses of head that occurs after the water leaves the ground. These consist of pressure losses due to dynamic and friction factors arising in the screen openings and the well casing itself, the sum of which however may represent a considerable percentage of the total available head. It must be realized that wells of greater diameter and screen area are worth installing not only because the chemical process of incrustation and the mechanical process of silting up and clogging are cut down, but also because hydraulic laws favor the larger well.

An attempt to achieve lower velocities and increase the area of exposed aquifer by building large-diameter dug wells or infiltration galleries has frequently been defeated due to the difficulty and, for

certain soils, the impossibility of providing proper conditions of contact between the water-bearing ground and the exterior surface of the structure in question. The gravel-packed well has been able to overcome some of these difficulties and this has resulted in its wide adoption. These wells are constantly becoming larger and more elaborate. As much as $50,000 has been invested in single vertical wells, where the depth to the aquifer is great like in Houston, Corpus Christi and Galveston, Texas, and sometimes the cost is not inferior for much shallower gravel-packed wells, as for example on Long Island where full advantage of the ground must be taken and unusual precautions against the inflow of surface waters have to be made.

The more recent *vertical* gravel-packed well may be 100 ft. deep, 52 in. in diameter at the top and 38 in. at the bottom, with a 24-in. diameter screen, 30 to 40 ft. in height. The success of such wells is the best testimony to the need and advantage of having a large screen area.

Principles of New Radial Process. The new radial well or Ranney Water Collector has been developed to permit not only the exposure of a very large area of water-bearing ground, but to install perforated pipes in such a way that the inflow of the water from the aquifer would not entrain fine material or incrustate the screens. See accompanying figure.

The invention and adaptation of the perforated digging head method permitted projecting large diameter screen pipes horizontally into the ground. The process was first used in England in 1934. Briefly, it consists of excavating the fine material in the ground by means of a special perforated point which communicates with the interior of the caisson by means of a sand discharge pipe. The ground water is kept out of the caisson by means of a sliding packer and an outside rubber disk shaped like a top hat. See Figures 1 and 2.

Sections of screen pipe are added to those previously projected into the ground, and with every section of outside screen pipe there is added a corresponding section of inner sand discharge pipe. The sliding packer is pulled back to keep it lined up with the outside rubber diaphragm that is attached to the porthole. In this way, by controlling the inflow from the sand discharge pipe, the necessary amount of fines is removed. This achieves two objects. The first is

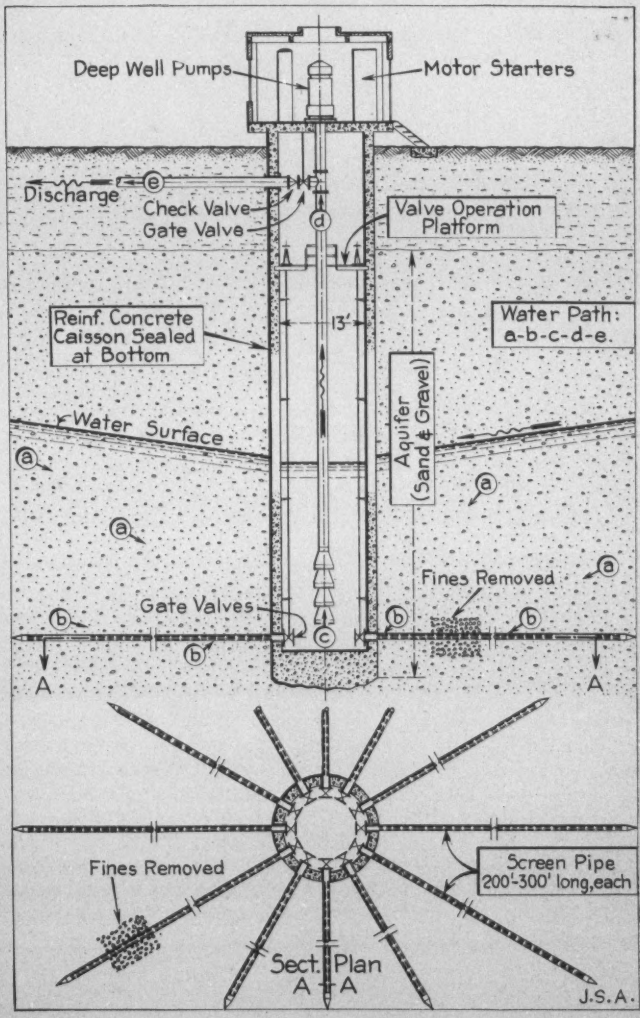


FIG. 1.—RADIAL WELL OR RANNEY WATER COLLECTOR.

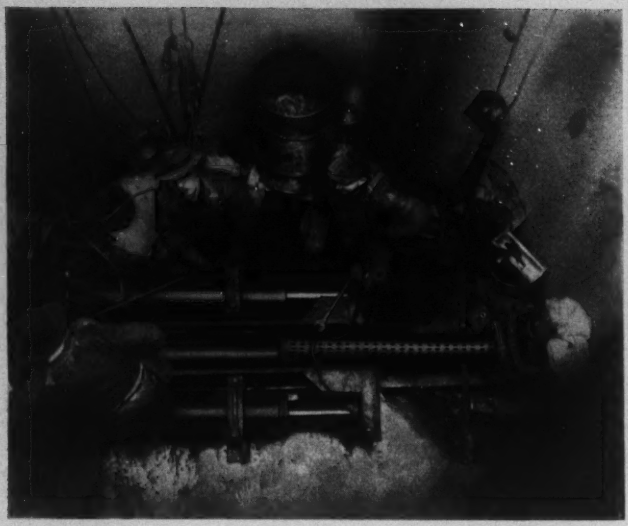


FIG. 2.—PROJECTING SCREEN PIPE FROM CAISSON.

to loosen up the ground by the removal of a certain amount of material to allow for the displacement of the pipe; the second is to create a gravel structure around the screen pipes which, in effect, increases the area of undisturbed ground exposed, reducing the velocities of approach to such an extent that there is a minimum of entrainment of sand and of incrustation of the ground or of the screen openings.

The sections of the perforated pipes are permanently welded end to end, but the sand discharge pipes are screwed together. When the final sections have been projected, the sand discharge pipe and packers are withdrawn, and the pipe is closed off by means of the gate valve which is bolted to the flange of the porthole opening.

The underlying principle of the process is the fullest utilization of the actual transmission capacity of the ground and of the available ground-water storage. The "local resistances" are reduced to a mini-

mum, and this permits much larger production capacity than would be expected from the given site if the usual methods of abstraction were used. In a sense, a water collector at a certain location is the equivalent of a number of good gravel-packed wells dispersed over a much larger site with similar hydro-geologic characteristics. Sometimes, however, this large area is not available for installing the necessary number of dispersed vertical wells.

Construction and Engineering Features of Water Collectors. The caissons are usually 13 ft. in diameter. They are made of heavy reinforced concrete and are provided with a steel cutting edge. Sinking is done by the open dredging method. Suitable portholes are cast into the walls of the caisson at selected levels, through which the screen pipe will be projected. When the caisson has been sunk to the required position, a reinforced concrete plug is poured by the Tremie method. After the concrete has set, the shaft is unwatered and one can then proceed with the installation of the pipes.

After the screen pipes are all in place, each pipe in turn and the ground adjacent to it, are flushed and back-washed in a somewhat similar way as is done when vertical wells are developed.

Vertical turbine well pumps are installed with the motors and controls housed in a super-structure usually supported by the caisson itself. When reserve pumping units, transformers, chlorinators, and supplementary control mechanisms are desired, the super-structure must be larger and then rests on its own foundation surrounding the shaft. Special methods and processes have been developed to meet unusual situations imposed by the ground to be penetrated or resulting from the special requirements of the water consumer.

Space does not permit a more detailed description of all the construction problems encountered on different jobs, but a few will be referred to later in the description of typical installations.

As regards the engineering phases of ground-water development and estimates of probable production from a site, the more one has dealt with sub-surface flow problems, the more one hesitates to make any generalizations. For instance take a certain sample of soil and test it for permeability in a laboratory. Depending on the degree of compaction of the material placed in the permeameter, or on the orientation of the grains, the experimental coefficient may vary by

plus or minus 50 per cent. If entrapped air is not eliminated the results may be still further apart.

The ground at any site usually consists not only of different layers of variable material, but the shape of the underground reservoir itself is irregular. In many cases, entrapped air and dissolved gases that are liberated when water is pumped out of the ground tend to further confuse the picture. The problem, however, is not hopeless. If these prerequisites of technical knowledge, tests, and time are available, a certain degree of accuracy in the estimating of production can be obtained. Not one of these three factors can be left out. During the war emergency, sufficient time for tests and studies has frequently not been allowed. This has resulted in larger mistakes in estimates than would ordinarily occur.

Description of Typical Installations. It is impossible to give a full description of the different water collectors that have been built. While they all have many points of similarity each one in the final analysis is a tailor-made structure to fit the available site and perform the service required.

The first installation was a small shallow unit built for the London Metropolitan Water Board to supplement the supply of the City of London which was endangered by an unusual drought, the most severe and the longest in a record of 300 years. The Thames was running very low, but there were enormous quantities of water available in the top gravels about 30 ft. thick overlying the London clay in turn superimposed on chalk largely depleted by hundreds of deep private wells that had been in use for many years. A much deeper unit was then built in Ohio for a manufacturing company and its capcity of approximately 20 m.g.d. was larger than that of any other well of which record could be found. Several shallow, medium-sized units were installed for municipal supplies in controversial or poor ground but which nevertheless was the only ground available. In some cases the pumping rates were not particularly large. As will be seen later the quality of the water was, however, exceptionally good.

Then the war created a demand for tremendous quantities of clear cold water, if possible having constant characteristics, for process and condensing purposes. As an example, the manufacture of every pound of smokeless powder requires several hundred gallons of water

of high quality. The inertia against the adoption of new methods was overcome thanks to several leading chemical companies, and as a result many war plants are now being equipped with radial wells. The capacity of some of these developments is over 50 m.g.d.

To give a simplified idea of the field of application of the process, it might be best to describe a typical installation. The figures to be given apply to a median hypothetical collector, there being actually about as many units built that are larger and more expensive as there are smaller and less expensive ones.

Total height of the shaft may be 75 ft. of which 60 ft. represents the depth below the ground and 15 ft. the height above the surface to place the operating equipment above maximum possible flood level. There are seven 8-in. diameter screen pipes from 50 to 200 ft. long totaling 900 linear feet of screen. The safe production capacity is 5000 g.p.m. The screen entrance velocity is 0.02 f.p.s. There are three vertical turbine pumps each having a capacity of 2500 g.p.m., thus providing a spare unit. The cost of the installation is $80,000 complete with housing and pumps. The overall cost of the filtered water produced is 1½ c. per 1000 gallons. The temperature of the water ranges from 55 to 65° F. Chlorination is necessary in small doses to safeguard the supply for human consumption.

Now reviewing the actual installations made, the range is all the way from small units producing 250,000 g.p.d. of water of good quality from a formation previously considered entirely non-productive, at a first cost of $100 per 1000 g.p.d. capacity to large units in properly selected ground having a capacity of over 25 m.g.d. The first cost per 1000 g.p.d. capacity is ordinarily between $10.00 and $20.00. If the ground is poor it may be higher, if good then $5.00 or less per 1000 g.p.d. capacity.

One notable project was the Charlestown Powder Plant. From data officially released on this project it may be revealed that seven units placed along the Ohio River have a capacity of over 65 m.g.d. All operating mechanisms are above maximum flood stage and after more than a year of functioning, no deterioration in operating conditions is to be observed. The temperature conditions were satisfactory and resulted in much smaller summer pumpage rates than would otherwise have been necessary.

Data on Performance and Quality of Water. If suitable ground is available for the horizontal screen well, the resulting installation offers a number of economic advantages. Among these are:

1. The concentration of production at fewer points.
2. Utmost utilization of the production capacity of the ground.
3. Favorable conditions for economical operation such as lower pumping costs, slower rates of incrustation, better facilities for inspection, maintenance, and back washing.

As a result in some cases the entire original investment can be retired in several years of operation. That depends largely on the type of ground one has to deal with. In the final analysis the performance will not be any better than what nature allows it to be. Recent developments have nevertheless increased Man's powers of persuasion in that respect.

As to the quality of ground water, there has been a curious popular misconception regarding the desirability and in fact the necessity of depth, to obtain satisfactory well water. This is no doubt a carry-over from the times when most wells were drilled in consolidated formations. Obviously, water produced from the cracks and seams of a rock formation is not filtered the way water is when it passes through a sandy aquifer. The effective storage capacity of a rock structure is usually much less per unit of volume than that of unconsolidated material such as sand or gravel. For these reasons it was necessary to drill fairly deep wells before adequate capacity and quality could be obtained. The well driller also tried to avoid the necessity and cost of installing a screen. Hence he usually drilled until he reached rock.

With the advent of tubular or cased wells for water-bearing sand and gravel formations, the previous habits nevertheless persisted. The emphasis on depth was frequently unnecessary or even harmful. One of the rare references in technical literature on certain advantages of shallow wells, can be found in a paper read before this Association in 1909 by the late Wm. S. Johnson.

Recent experience has shown that large supplies of ground water of high quality can be attained at very moderate depths. As an example take the case of the Indiana Ordnance Plant. The underlying rocks consist of unproductive shales, sandstones, and limestones. The water-bearing sands and gravels are about 100 ft. thick. Tests showed

that the bottom horizon of alluvial deposits yielded water with an iron content of several parts per million, whereas the water from the 60-ft. depth had an iron content of only 0.5 p.p.m. It was decided to collect the water at this shallower depth. The analysis of the water shown in table 1 and the production obtained from this one field at

TABLE 1.—INDIANA ORDNANCE WORKS, RANNEY WELL WATER ANALYSIS

ANALYZED FOR	EXPRESSED AS	PARTS PER MILLION		
Date		*3-4-41*	*12-23-41*	*2-15-43*
Total Alkalinity	$CaCO_3$	286	135	125
Carbon Dioxide	CO_2	11.0	5.5	5.0
Total Hardness	$CaCO_3$	317	239	190
Calcium	$CaCO_3$	222	143	135
Magnesium	$CaCO_3$	95	103	67
Sulfate	Na_2SO_4	37	65	90
Chlorides	NaCl	43	47	39
Silica	SiO_2	12.6	8.5	9.0
Iron	Fe	0.5	0.3	0.1

Note: Well water has an averaged bacterial count variation between 25 and 100.

least indicates that shallow aquifers are not necessarily un-productive or yield water of inferior quality.

Other examples of water of high quality from aquifers less than 30 ft. below the surface can be cited. The analysis of water from a collector in New Jersey which is about 30 ft. deep is given in table 2. After many misgivings on the part of the New Jersey Health departments, when the well was being installed, it is now believed to be the purest ground water produced in the entire state. In another case, shallow radial units for a town in Ohio replaced the old source of supply, the special tastes and odors of which just could not be eliminated by chemical or other treatment. See table 3.

In conclusion one may state that it is not safe to be dogmatic on the subject of the quality of well water being a function of depth. Here, as with most engineering problems, each case has to be studied on its own individual merits.

Summary. In recent years, ground water supplies have been somewhat eclipsed by the great aqueducts and gigantic filtration plants that have been built. This neglect is not justified. Ground

TABLE 2.—PENNS GROVE WATER SUPPLY COMPANY.
Analysis of Water from Ranney Well Made by John L. Radcliffe, Chemist, Elizabeth, N. J.

	Acceptance Test Dec. 13, 1939 Time after Start		May 20,	Jan. 27,	Oct. 6,	Sept. 11,
	0 hr. 5 min.	32 hr.	1940	1941	1941	1942
	PARTS PER MILLION					
Color	15	0	2	1	1	—
Turbidity	34.5	19.5	0	0	0	0
PH	5.4	6.0	7.1	6.5	7.0	8.4
Iron	0	0.2	0.05	0	0	0
Odor (Hot)	0	0	0	0	0	0
Total Solids	84	78	—	105	140	117
Total Hardness	28	26	—	62	80	74
Alkalinity	11	4	—	39	52	65
Chlorides	9	9	10	11	12	10
Free Ammonia	0.05	0	0.03	.08	0	0
Albumoid Ammonia	0.05	0.02	0.04	.02	.03	—
Nitrites	0.02	0.003	0.004	0	0	0
Nitrates	3.0	2.5	2.25	3.0	1.0	—
Chlorine Demand	—	—	0.75 lb.*	0.75 lb.*	1.0 lb.*	1.0 lb.*
Bacteria per cc. 37°	R-0	R-1	—	R-4 D-1	R-36-D-3	R-15 D-5 per-50 cc.
Coli in five samples 10-cc.	Absent in all samples of Raw Water					

*Lb. per mg.

TABLE 3.—LISBON WATER WORKS OHIO, ANALYSIS OF WATER FROM RADIAL WELL, MAY 18, 1942.

Total Alkalinity	215 p.p.m.
Phenolphthalein Alkalinity	0 p.p.m
Noncarbonate hardness	0 p.p.m.
Total hardness	215 p.p.m.
Iron (Fe)	Trace
Free CO_2	6 p.p.m.
pH Value	7.8

The above figures supplied by Charles P. Hoover Consulting Engineer, Columbus, Ohio.

water remains a much more substantial part of the total available supply than is generally realized. After the war one will be able to learn to what an extent the larger plants have relied on ground water. One cause for this is given by the better methods of abstracting ground water. Another reason is that the emphasis in water supplies is more and more on lower temperatures. Many of the great new chemical and manufacturing industries require cold water for processing and condensing purposes creating demands that even a few years ago could not have been anticipated. The new techniques for the abstraction of ground water should not be misused. It does not now follow that any aquifer can be pumped at the highest possible rate with impunity.

Each site must be investigated and tested to determine the probable safe yield for a given method of ground-water collection. What recent developments do signify, is that comparatively shallow sand and gravel formations can be effectively exploited. In some cases that would relieve the withdrawals from the deeper strata which may be more difficult to recharge.

New England during the latter part of the nineteenth century was probably the greatest center of scientific and technical development in the water works field. Pioneering work and accomplishments in hydraulics, hydrology, filtration, as well as the chemical treatment and bacteriological purification of water by such men as Francis Stearns, Mills, FitzGerald, Herschel, Sedgwick, Hazen, Freeman, and Whipple have benefited the whole of mankind.

At the present time there are a number of countries where important investigations and research are being conducted in these fields. Recent theoretical studies and laboratory tests on the flow of fluids through porous media are beginning to give a fairly clear and consistent explanation of this class of phenomena. However, the application of these data to actual conditions in the field will always remain difficult.

The transmission capacities of natural formations vary tremendously. Alluvial or glacial deposits may consist of coarse clear gravels in juxtaposition to or interlayed with clays. The coefficient of permeability of any given material in its natural state is anisotropic. Since the captation of ground water almost always involves both horizontal

and vertical flow, this introduces complexities that laboratory coefficients however accurate in themselves, cannot be expected to solve. At least the basic principles and laws governing ground water flow are now known and the practical hydro-geologist can study these to correlate and explain his inductive findings.

In the field of chemistry and quality of ground water on the other hand, it is surprising how little is definitely known. The members of the New England Water Works Association have a special opportunity in this respect. They are making frequent tests of the supply obtained and treating it in various ways to improve its quality. By pooling their knowledge and experience and by some scheme of joint research more data can be assembled on such questions as the real nature of incrustation, on the reasons why iron content of water varies so much in a given aquifer depending on the location and depth of the point of captation, or the rate and manner of abstraction. Just what effects are produced by dissolved gases and entrapped air? Are there chemical causes why clear water recharged into the ground frequently nevertheless clogs up a well? We have certain generally accepted theories on these matters but very little, if any quantitative information which could be used in scientifically projecting new ground water supplies.

The present war effort and the subsequent period of reconstruction requires the proper conservation, which really means the efficient utilization, of the natural resources available to mankind. Of these none are more vital than the water resources of which sub-surface supplies form an important part. The protection and proper exploitation of ground waters will from now on increasingly depend on a better understanding of the chemical and bacteriological changes that occur once water seeps into the ground.

RAINFALL IN NEW ENGLAND

BY GEORGE V. WHITE*

[*Received September 1, 1941.*]

PART III. RAINFALL IN RHODE ISLAND, CONNECTICUT, AND EASTERN NEW YORK

Station and Drainage Basin records of the "Rainfall in New England" are presented in the three parts that make up this paper. They are a continuation of the tables prepared by the late X. H. Goodnough which were published in the Journals of the New England Water Works Association as follows: Vol. 29, No. 3, 1915; Vol. 35, No. 3, 1921; Vol. 40, No. 2, 1926; and Vol. 44, No. 2, 1930. Part I of the present paper covers the Rainfall in Massachusetts and was published in Vol. 56, No. 4, pp. 405-502 of this Journal; Part II records station observations for Maine, New Hampshire, and Vermont and appeared in Vol. 57, No. 1, pp. 15-62 of this Journal. Part III completes the information for New England by presenting tables for Rhode Island and Connecticut and adds for good measure tables for Eastern New York that permit a broader interpretation of the rainfall descending on the Western rim of New England. All rainfall values are expressed in inches.

Since this paper was presented for publication in September 1941, additional data have been collected under the supervision of Ralph M. Soule, Assistant Sanitary Engineer, Massachusetts Department of Public Health. Mr. Soule has kindly added the records for the years 1940 and 1941 and has read proof for all the tables, assisted by the clerical staff of the Division of Sanitary Engineering of the Massachusetts Department of Public Health of which Arthur D. Weston is Chief Engineer.

*Senior Engineer, Retired, Massachusetts Department of Public Health.

Rainfall Records for Rhode Island

BLOCK ISLAND, R. I. Elevation, 26 feet.
Record January 1878 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	Mar.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.57	9.73	8.54	7.97	6.54	12.93	8.57	9.79	7.76	7.38	9.42	8.67	63.15
Year	1882	1882	1899	1907	1898	1881	1895	1911	1896	1883	1897	1901	1884
Min.	1.67	0.83	0.33	1.24	0.41	0.21	0.22	0.57	0.23	0.23	0.19	0.95	27.18
Year	1902	1901	1915	1910	1923	1912	1894	1916	1914	1924	1917	1889	1888
1929	3.21	3.28	4.59	5.66	4.81	1.09	0.90	1.28	3.57	1.96	3.48	4.47	38.30
1930	3.23	3.95	2.35	1.47	3.06	2.00	1.78	2.29	0.42	4.16	3.51	3.53	31.75
1931	3.81	2.10	4.08	2.48	3.79	4.57	2.11	4.72	1.93	4.41	0.92	3.59	38.51
1932	5.70	2.25	4.68	1.96	2.15	2.25	6.71	3.37	7.34	5.51	3.78	2.47	48.17
1933	1.93	4.24	4.95	5.56	1.59	3.13	1.16	4.68	8.54	3.15	2.32	3.30	44.55
1934	3.06	3.89	4.17	3.67	3.32	3.31	0.52	1.50	2.38	3.09	2.27	3.52	34.70
1935	6.14	3.33	2.44	3.03	1.17	4.39	3.51	1.02	4.72	1.58	3.39	1.69	36.41
1936	5.49	3.43	6.50	2.53	1.18	3.50	1.34	1.11	5.07	2.08	1.44	9.42	43.09
1937	4.51	1.81	3.55	4.59	3.26	3.82	1.22	5.85	3.54	3.42	4.44	2.22	42.23
1938	2.73	1.93	2.61	3.64	4.24	6.53	3.08	5.27	6.31	2.94	3.03	3.44	45.75
Av. 61 yrs.	3.79	3.51	3.87	3.56	3.27	2.80	2.94	3.55	3.02	3.48	3.49	3.78	41.06
1939	3.32	5.45	4.70	3.99	0.90	2.66	0.47	5.22	0.92	4.27	0.92	1.60	34.42
1940	2.01	2.92	2.92	5.01	3.31	1.88	2.21	1.16	2.85	2.52	6.37	3.10	36.26
1941	3.93	1.44	2.25	1.81	0.92	5.90	4.55	2.61	0.08	2.56	2.38	2.38	30.81

BRISTOL, R. I. Elevation, 53 feet.
Record January 1887 to December 1925 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.10	6.67	8.14	8.33	7.14	8.50	10.40	10.03	7.78	9.47	7.57	9.16	57.97
Year	1915	1920	1890	1904	1901	1922	1916	1922	1899	1898	1897	1901	1898
Min.	1.11	0.51	0.02	1.27	0.44	0.43	0.58	0.66	0.81	0.69	0.39	1.29	31.91
Year	1916	1895	1915	1896	1924	1912	1909	1902	1908	1924	1917	1899	1924
Av. 39 yrs.	3.94	3.71	4.08	3.74	3.27	2.98	3.02	3.53	2.99	3.28	3.43	3.77	41.74

BURRIVILLE, R. I. (Wallum Pond). Elevation, 400 feet.
Record January 1910 to December 1917 inclusive.

	Jan.	Feb.	Mar.	Apr.	Mar.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.14	5.46	8.10	5.41	4.43	6.15	8.69	6.46	3.27	6.25	5.39	6.66	48.73
Year	1915	1915	1912	1914	1912	1916	1915	1915	1911	1917	1911	1912	1912
Min.	1.64	2.00	0.17	1.35	1.20	0.46	1.75	1.77	0.39	1.74	1.03	1.68	30.26
Year	1916	1917	1915	1910	1911	1912	1910	1910	1914	1916	1917	1913	1910
Av. 8 yrs.	4.04	3.13	3.72	3.26	3.33	3.04	3.89	4.42	2.11	3.47	3.20	3.31	40.92

CRANSTON, R. I. (Fiskeville, Providence Water Works). Elevation, 260 feet.
Record March 1916 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.84	5.81	6.73	6.37	6.13	8.26	10.10	9.01	9.62	7.14	10.06	6.11	55.56
Year	1923	1920	1922	1924	1919	1920	1916	1922	1918	1917	1927	1927	1920
Min.	2.45	1.83	1.77	1.77	1.23	1.16	1.36	1.62	0.93	0.21	0.42	2.39	38.13
Year	1922	1923	1927	1922	1928	1924	1917	1925	1916	1924	1917	1924	1924
1929	4.77	4.75	4.38	8.50	3.85	1.16	1.81	3.17	2.25	3.18	2.76	4.25	44.83
1930	3.02	3.50	3.04	2.01	2.59	3.53	3.62	2.64	0.42	3.79	4.75	3.18	36.09
1931	3.53	2.16	7.02	3.03	4.44	6.32	3.66	5.45	1.99	2.52	1.10	3.12	44.34
1932	6.60	2.57	5.11	1.85	2.90	2.27	3.27	6.15	11.81	7.31	6.71	2.60	59.15
1933	0.67	4.40	7.72	5.90	3.66	2.95	1.07	3.62	6.18	3.06	1.31	4.41	44.95
1934	4.16	4.84	4.91	4.93	3.27	4.34	1.48	3.03	4.40	1.90	3.20	3.39	43.85
1935	7.48	2.53	1.90	4.62	1.00	5.64	3.04	1.43	3.29	0.91	5.92	0.76	38.52
1936	7.30	3.93	7.54	3.87	2.35	3.06	3.46	2.56	6.39	1.56	0.97	10.59	53.58
1937	3.52	2.56	3.87	5.72	2.26	3.45	1.10	4.41	3.09	3.04	7.46	3.14	43.62
1938	4.74	2.63	1.96	1.99	4.54	6.46	7.09	2.39	5.29	3.16	3.77	4.28	48.30
Av. 22 yrs.	4.34	3.50	4.35	4.20	3.27	3.97	3.46	4.11	4.23	3.27	4.26	3.93	46.89
1939	3.23	5.63	5.95	5.17	0.90	2.89	1.06	6.43	3.76	5.01	1.31	3.29	44.63
1940	4.03	5.12	4.80	6.80	6.12	2.38	3.58	2.31	2.97	2.25	6.63	2.31	49.30
1941	3.61	3.30	3.26	1.70	2.98	4.99	4.96	3.95	0.12	1.52	2.97	4.00	37.36

CRANSTON, R. I. (Pettaconsett Pumping Station, Providence Water Works). Elevation, 25 feet.
Record 1877 to 1879; 1885 to 1886; 1909 to 1933 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.52	10.98	10.39	6.54	4.82	8.27	9.01	11.83	9.75	8.27	8.86	8.22	61.20
Year	1915	1886	1877	1913	1921	1920	1916	1927	1918	1877	1878	1878	1878
Min.	0.54	1.30	0.00	1.24	0.80	0.67	0.63	0.77	0.48	0.27	0.32	1.25	34.07
Year	1918	1877	1915	1877	1923	1914	1909	1923	1916	1924	1917	1877	1910
1929	4.49	4.22	4.61	7.83	3.52	0.45	1.44	3.94	2.83	2.94	3.01	4.57	43.85
1930	3.25	2.94	3.66	1.57	3.20	3.25	4.12	3.46	0.66	3.76	4.13	3.18	37.18
1931	4.57	2.69	5.91	3.36	3.66	6.56	3.85	5.68	2.18	2.96	1.10	3.43	45.95
1932	6.02	2.36	6.08	1.90	3.03	2.46	3.22	6.61	8.29	6.81	5.04	2.14	53.96
1933	2.47	4.07	7.95	7.28	4.86	3.47	1.34	3.76	———	———	———	———	———

CRANSTON, R. I. (Sockanosset Reservoir, Providence Water Works). Elevation, 182 feet.
Record 1877 to 1879; 1909 to 1928 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.71	7.57	10.02	6.89	4.82	8.24	9.45	12.47	9.06	8.71	9.47	8.66	65.15
Year	1915	1920	1877	1879	1920	1920	1916	1927	1918	1877	1878	1878	1878
Min.	1.44	1.05	0.04	1.85	1.23	0.65	0.63	1.36	0.71	0.18	0.37	0.93	33.23
Year	1916	1877	1915	1910	1923	1914	1909	1916	1916	1924	1917	1877	1910
Av. 22 yrs.	4.21	3.81	4.15	4.14	3.10	3.47	3.63	4.64	2.78	3.46	4.12	4.06	45.57

FOSTER, R. I. (Hopkins Mills, Providence Water Works). Elevation, 450 feet.
Record January 1916 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.75	6.79	6.60	6.74	6.22	8.01	8.83	8.10	9.39	6.63	10.27	5.41	57.95
Year	1923	1920	1922	1920	1919	1920	1922	1922	1918	1917	1927	1920	1919
Min.	1.81	1.87	1.17	1.95	1.32	1.67	1.34	1.43	1.48	0.23	0.53	2.51	39.76
Year	1922	1923	1927	1922	1928	1926	1917	1916	1916	1924	1917	1924	1924
1929	4.94	4.30	3.63	7.66	4.37	1.81	2.37	3.48	1.22	3.96	3.24	4.52	45.50
1930	2.96	2.81	3.37	2.31	2.53	2.40	3.42	3.84	1.66	2.79	4.52	3.31	35.92
1931	3.23	2.65	6.03	3.10	4.31	5.82	3.43	6.66	1.68	2.02	1.04	3.02	42.99
1932	6.26	2.31	6.03	2.04	2.54	2.36	1.92	7.90	11.19	6.56	6.24	2.05	57.40
1933	2.10	4.07	5.91	5.88	3.71	3.70	2.30	4.98	7.74	3.85	1.44	3.78	49.46
1934	3.38	3.79	3.36	5.18	4.23	5.89	2.91	4.64	8.08	3.80	4.66	3.87	53.79
1935	8.43	3.36	2.16	5.23	2.42	4.78	4.60	0.99	3.74	1.07	6.14	1.02	43.94
1936	9.47	4.41	9.41	3.79	2.25	2.71	2.15	3.36	7.20	2.74	1.24	9.18	58.21
1937	5.04	2.36	3.97	5.36	2.95	3.03	1.88	5.98	4.80	4.01	7.92	2.92	50.22
1938	4.13	3.03	3.04	2.56	4.23	9.44	14.30	3.96	7.39	2.33	3.95	3.59	61.95
Av. 23 yrs.	4.20	3.51	4.26	4.27	3.48	4.21	4.45	4.63	4.61	3.35	4.22	3.76	48.95
1939	3.82	5.06	7.93	4.72	0.90	3.00	1.72	5.19	3.93	6.09	1.40	3.62	47.38
1940	3.10	6.73	3.86	5.59	5.92	2.74	4.47	1.73	2.60	1.95	6.67	2.53	47.89
1941	3.35	3.63	3.26	1.16	3.21	5.23	6.08	3.92	0.25	2.01	3.09	3.74	38.93

GREENE, R. I. Elevation, 450 feet.
Record January 1910 to May 1925 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.59	5.57	7.08	6.40	5.12	7.33	8.53	7.52	8.11	6.23	7.60	6.52	51.88
Year	1915	1920	1912	1913	1922	1922	1916	1917	1918	1913	1921	1912	1920
Min.	1.13	1.87	0.08	1.26	0.75	0.64	1.60	1.87	0.53	0.25	0.28	2.15	36.27
Year	1922	1923	1915	1915	1911	1912	1924	1921	1914	1924	1917	1919	1914
Av. 15 yrs.	3.74	3.33	3.57	3.82	3.32	3.47	3.98	4.17	3.48	2.78	3.79	3.69	43.14

HOPE, R. I. (Clyde Print Works). Elevation, 200 feet.
Record January 1888 to December 1928 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.07	9.75	10.28	12.15	8.95	8.15	10.34	9.93	11.47	10.55	9.55	9.45	65.81
Year	1919	1900	1901	1901	1893	1920	1916	1927	1907	1890	1897	1901	1901
Min.	1.50	1.15	0.07	0.45	0.10	0.25	0.95	1.14	0.70	0.10	0.45	1.50	35.94
Year	1890	1892	1915	1888	1903	1894	1894	1907	1914	1897	1917	1892	1910
Av. 41 yrs.	4.29	4.06	4.47	4.19	3.69	3.28	3.95	4.15	3.95	3.86	4.18	4.23	48.30

HOPKINTON, R. I. (Hope Valley). Elevation, 120 feet.
Record 1910 to 1920 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.74	7.10	9.23	7.84	4.64	5.25	8.81	8.00	8.46	7.30	8.48	6.82	60.04
Year	1915	1920	1912	1913	1919	1916	1916	1915	1919	1913	1911	1912	1919
Min.	1.37	2.30	0.29	1.50	1.95	0.62	2.61	2.28	0.47	1.80	2.33	1.85	39.07
Year	1916	1914	1915	1915	1911	1912	1911	1916	1914	1912	1913	1917	1914
Av. 10 yrs.	5.04	3.85	4.73	4.16	3.36	2.92	4.25	4.46	3.24	3.56	3.77	4.28	47.62

JOHNSTON, R. I. (Neutaconkamut Reservoir, Providence Water Supply).
Record February 1929 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1929	——	4.37	3.94	7.54	3.90	1.21	1.94	2.75	2.53	3.28	2.62	4.30	——
1930	2.79	2.69	3.31	1.66	2.55	2.48	4.24	2.17	1.33	4.18	4.12	2.74	34.26
1931	3.86	2.42	5.92	2.92	4.00	5.76	3.46	5.13	1.96	2.42	0.90	3.12	41.87
1932	5.47	2.06	5.95	2.01	2.45	2.76	2.80	4.98	10.35	6.71	6.53	1.94	54.01
1933	2.14	3.64	7.15	6.77	4.16	3.76	1.72	3.17	7.41	2.65	1.32	3.80	47.69
1934	4.05	3.34	4.36	4.52	3.74	4.13	1.86	2.26	6.21	3.23	3.89	4.68	46.27
1935	4.67	3.21	1.65	4.17	1.76	4.45	3.89	1.43	3.88	1.40	5.60	0.76	36.87
1936	6.92	3.96	8.87	4.27	2.21	2.72	2.25	3.23	7.51	1.83	1.29	9.86	54.92
1937	4.67	1.92	4.16	5.98	2.51	5.11	1.15	4.31	3.69	3.94	6.21	2.82	46.47
1938	4.53	2.05	2.66	2.43	4.52	7.57	6.46	2.89	5.36	2.64	3.33	3.12	47.56
Av. 9 yrs.	4.34	2.81	4.89	3.86	3.10	4.31	3.09	3.29	5.30	3.22	3.69	3.65	45.55
1939	2.07	4.70	5.30	4.74	0.66	2.44	1.26	5.73	2.74	5.25	1.29	2.76	38.94
1940	3.67	4.00	4.18	5.80	6.36	2.21	3.68	1.16	2.60	1.96	6.32	2.18	44.12
1941	2.98	2.38	2.54	1.42	3.23	4.02	5.82	3.31	0.10	1.26	2.63	3.77	33.46

KENT, R. I.
Record January 1926 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1926	3.55	6.95	3.77	2.37	2.76	1.58	3.40	4.48	1.81	5.43	5.67	3.23	45.00
1927	3.06	3.04	1.65	2.63	3.28	3.42	3.57	10.92	2.22	4.36	7.31	5.41	50.87
1928	2.87	4.42	2.90	7.29	1.76	4.06	4.44	5.21	6.36	3.94	2.95	3.01	49.21
1929	5.05	4.97	3.64	7.49	3.63	1.32	2.00	2.82	1.74	3.10	2.97	4.35	43.08
1930	2.89	2.98	2.87	1.87	2.99	3.75	3.36	3.13	0.41	3.85	4.75	3.32	36.17
1931	3.99	2.54	7.53	3.19	3.76	6.12	3.83	5.53	2.83	2.55	1.03	3.46	46.36
1932	6.44	2.41	5.50	1.68	3.00	2.51	3.76	5.87	13.74	7.65	8.47	1.56	62.59
1933	1.18	2.97	6.13	6.22	3.86	4.08	1.33	3.37	7.31	2.83	1.51	4.02	44.81
1934	3.88	4.03	2.74	5.11	3.83	3.73	1.55	3.03	5.98	2.79	4.19	2.99	43.85
1935	6.82	2.81	1.92	5.35	1.64	5.27	4.00	1.74	3.83	1.17	6.14	0.83	41.52
1936	9.11	4.48	9.42	4.31	1.74	2.77	3.52	3.26	7.95	1.91	1.00	10.37	59.84
1937	4.93	2.31	4.18	6.16	2.80	3.41	0.89	4.37	3.20	3.77	7.83	2.82	46.67
1938	4.86	3.02	2.52	3.72	4.24	7.16	8.00	2.26	5.56	2.51	3.37	3.75	50.97
Av. 13 yrs.	4.51	3.61	4.21	4.42	3.02	3.78	3.36	4.31	4.84	3.53	4.40	3.78	47.77
1939	2.38	5.33	5.43	4.97	0.83	2.90	0.52	7.50	3.51	4.98	1.43	3.37	43.15
1940	3.30	4.97	4.36	6.24	6.03	1.75	4.28	2.18	2.91	2.13	6.72	2.42	47.29
1941	3.04	3.66	2.82	1.54	2.77	4.84	6.21	3.67	0.06	1.52	3.06	3.97	37.16

KINGSTON, R. I. Elevation, 250 feet.
Record January 1889 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	11.43	9.44	9.67	9.70	8.95	7.42	11.75	11.65	7.76	12.05	10.25	10.30	72.22
Year	1915	1893	1899	1904	1898	1920	1916	1927	1928	1898	1897	1901	1898
Min.	1.84	1.13	0.23	1.45	0.70	0.50	0.72	1.02	0.75	0.27	0.41	1.80	42.63
Year	1916	1901	1915	1896	1903	1894	1907	1906	1903	1924	1917	1899	1892
1929	4.56	4.29	4.99	8.57	4.20	0.75	2.52	5.29	5.25	3.01	3.35	6.01	52.79
1930	3.37	4.15	2.84	1.70	3.45	2.50	3.35	2.49	1.39	2.92	3.75	4.16	36.07
1931	4.86	2.92	5.52	2.63	3.07	5.36	3.73	3.99	1.03	2.64	1.09	2.59	39.43
1932	8.05	2.38	5.40	2.00	2.76	2.40	2.81	5.40	12.66	7.82	7.34	2.19	61.21
1933	2.52	3.97	4.85	7.63	2.18	2.15	2.03	5.08	8.09	2.87	2.78	4.28	48.43
1934	3.56	5.02	3.01	5.92	4.24	3.19	1.38	1.62	3.23	3.20	2.85	3.89	41.11
1935	5.22	2.89	2.31	4.28	1.95	5.89	3.92	1.49	5.21	1.04	7.04	0.84	42.08
1936	6.85	4.21	6.47	3.41	1.81	4.29	1.56	4.46	7.91	2.45	1.19	11.59	56.20
1937	4.45	2.47	4.07	5.47	3.31	4.36	0.97	4.06	3.24	4.02	5.73	2.71	44.86
1938	3.93	2.29	2.57	3.33	5.84	7.05	4.49	3.51	5.91	3.95	4.42	3.57	50.86
Av. 50 yrs.	4.86	4.29	4.71	4.61	3.91	3.49	3.38	4.28	3.93	4.07	4.23	4.70	50.46
1939	3.85	4.73	6.63	5.39	0.67	3.33	1.00	8.82	2.29	4.77	1.55	2.71	45.74
1940	2.34	4.40	3.60	5.15	4.78	1.93	3.46	0.81	3.59	2.38	7.16	2.04	41.64
1941	3.75	1.56	3.27	1.99	2.48	6.83	4.15	1.87	0.35	2.19	3.75	2.83	35.02

LONSDALE, R. I. Elevation, 116 feet.
Record January 1880 to December 1899 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.61	10.72	7.76	5.70	6.65	6.16	9.90	7.59	8.97	10.55	8.38	6.32	63.93
Year	1891	1886	1899	1898	1888	1881	1889	1888	1899	1890	1888	1884	1888
Min.	2.41	0.82	1.25	0.99	0.58	0.39	1.32	0.71	0.49	0.90	0.68	1.31	34.23
Year	1896	1895	1894	1896	1880	1884	1885	1883	1885	1897	1890	1892	1880
Av. 20 yrs.	4.75	4.65	3.99	3.16	3.98	2.83	3.83	4.07	3.63	4.28	4.19	3.74	47.10

NARRAGANSETT PIER, R. I. Elevation, 22 feet.
Record April 1882 to December 1918 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.97	10.64	8.95	7.69	8.96	6.22	10.69	7.43	7.99	9.16	8.25	9.33	58.10
Year	1915	1886	1903	1904	1898	1903	1916	1911	1907	1898	1897	1901	1898
Min.	1.59	1.17	0.34	1.38	0.80	0.10	0.63	0.82	0.76	0.88	0.34	1.40	35.71
Year	1896	1901	1915	1896	1903	1898	1885	1882	1884	1918	1917	1899	1885
Av. 36 yrs.	4.40	4.16	4.42	3.93	3.81	2.72	3.23	3.87	3.23	3.94	3.79	4.04	45.54

NEWPORT, R. I. (Fort Adams). Elevation, 30 feet.
Record 1841 to 1880 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.68	6.43	6.82	10.48	7.56	10.92	6.62	9.12	5.25	10.02	9.49	7.22	67.61
Year	1853	1843	1850	1853	1853	1842	1851	1843	1844	1843	1845	1841	1843
Min.	0.78	0.76	1.41	1.49	0.28	0.58	1.41	0.56	0.32	0.70	1.98	0.68	30.03
Year	1876	1879	1851 & 1874	1844	1880	1873	1873	1876	1877	1879	1879	1875	1879
Av. 16 yrs.	3.22	3.08	4.10	3.89	3.30	2.69	3.60	4.60	2.72	4.42	4.78	3.69	44.09

PAWTUCKET, R. I. (Filter Beds, Board of Public Works). Elevation, 40 feet.
Record January 1901 to May 1921 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.19	8.52	8.37	8.79	6.60	6.96	7.74	6.61	9.30	6.66	6.46	9.07	51.16
Year	1904	1902	1903	1904	1901	1903	1915	1919	1907	1913	1911	1901	1904
Min.	1.64	0.94	0.09	1.46	0.63	0.75	0.89	0.88	0.57	0.61	0.42	2.48	36.86
Year	1916	1901	1915	1910	1903	1914	1909	1907	1914	1918	1917	1919	1910
Av. 19 yrs.	4.28	4.16	4.37	4.05	3.17	3.13	3.54	3.55	3.60	3.21	2.79	4.60	44.45
1920	2.76	6.79	4.32	5.30	4.76	7.80	3.28	3.92	2.23	1.24	4.58	4.58	51.56
1921	3.36	3.38	3.22	4.42	2.88	———	———	———	———	———	———	———	———

PAWTUCKET, R. I. (Diamond Hill Reservoir, Board of Public Works). Elevation, 220 feet. Record January 1901 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.60	8.39	8.84	8.97	6.82	6.60	10.60	8.85	9.27	6.85	7.11	9.11	57.56
Year	1915	1902	1901	1901	1901	1922	1921	1927	1918	1913	1921	1901	1901
Min.	1.66	0.79	0.07	1.44	0.45	0.65	0.66	0.75	0.41	0.14	0.43	1.91	30.78
Year	1922	1901	1915	1922	1903	1912	1905	1907	1914	1924	1917	1924	1910
1929	4.76	4.10	3.86	7.41	3.30	1.17	1.63	1.68	3.12	3.10	3.06	4.69	41.88
1930	3.29	2.42	3.77	1.90	3.12	2.78	1.71	1.88	0.38	4.32	3.68	3.25	32.50
1931	3.84	2.53	5.94	2.93	3.32	8.73	3.06	4.75	1.25	2.68	0.75	3.10	42.88
1932	5.41	1.78	6.08	1.72	1.70	2.52	2.16	5.51	7.92	5.50	5.17	1.56	47.03
1933	2.25	4.17	6.22	6.21	2.56	1.31	1.58	2.86	8.54	2.89	1.35	4.46	44.40
1934	4.19	3.89	3.18	4.53	3.72	4.45	2.13	2.87	4.35	3.65	4.07	3.06	44.09
1935	7.50	3.29	1.60	4.92	2.20	5.48	4.98	3.19	2.57	0.77	5.06	0.74	42.30
1936	9.12	6.17	8.84	3.29	2.10	2.51	3.35	1.64	5.35	2.85	1.08	9.35	55.65
1937	4.40	2.43	3.81	4.91	3.97	5.10	0.77	7.17	4.31	3.61	7.38	3.54	51.40
1938	3.72	2.91	2.83	2.12	4.37	8.54	9.92	2.11	5.21	2.48	3.82	2.64	50.67
Av. 38 yrs.	4.01	3.59	4.32	4.04	3.16	3.44	3.84	3.56	3.78	3.27	3.37	4.01	44.39
1939	2.26	4.27	4.29	3.96	0.69	3.95	0.85	4.99	0.85	4.57	1.11	2.97	34.76
1940	3.33	4.15	3.88	5.34	5.12	1.93	2.50	1.40	2.37	1.48	6.03	1.12	38.65
1941	2.68	2.53	2.79	1.20	1.94	4.18	5.96	1.67	1.83	0.98	2.62	3.35	31.73

PAWTUCKET, R. I. (Masonic Building, Board of Public Works). Elevation, 140 feet. Record January 1901 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.54	7.52	7.85	8.88	6.24	8.35	9.21	10.58	9.74	6.51	8.54	8.95	51.62
Year	1915	1902	1912	1904	1901	1922	1916	1927	1907	1913	1921	1901	1920
Min.	1.57	0.94	0.07	1.76	0.88	0.63	1.01	1.01	0.58	0.17	0.35	2.00	38.05
Year	1922	1901	1915	1922	1903	1912	1917	1907	1914	1924	1917	1924	1910
1929	4.65	3.81	4.04	7.04	3.89	2.84	2.72	2.21	2.30	3.36	2.79	4.42	44.07
1930	2.81	2.57	3.34	1.47	2.68	2.73	3.45	2.49	0.96	4.26	3.40	2.66	32.82
1931	3.57	2.38	5.16	2.98	4.12	6.68	3.60	5.60	1.68	2.58	0.74	3.16	42.25
1932	4.76	2.03	5.28	1.97	2.62	2.71	3.18	5.79	8.85	4.94	4.96	1.63	48.72
1933	2.16	4.07	6.26	6.81	3.62	2.87	1.76	2.74	7.84	3.00	1.27	4.23	46.63
1934	3.92	3.75	3.94	4.74	3.51	3.89	1.18	2.94	4.55	3.03	4.24	3.49	43.18
1935	6.75	3.03	1.66	4.59	1.89	4.52	6.55	2.41	2.88	0.64	5.35	0.81	41.08
1936	7.99	4.81	8.76	3.71	1.93	2.48	2.75	3.12	6.22	3.16	1.21	10.23	56.37
1937	4.06	2.31	4.71	4.55	2.46	3.64	1.19	5.06	3.54	3.32	5.41	3.06	43.31
1938	4.15	2.45	2.97	2.27	4.78	8.49	7.49	3.49	5.08	2.66	3.40	2.91	50.14
Av. 38 yrs.	4.05	3.65	4.14	4.00	3.12	3.63	3.89	3.85	3.81	3.18	3.25	4.12	44.69
1939	3.05	3.21	5.49	4.07	0.83	2.92	1.08	6.00	2.59	5.62	1.25	2.41	38.52
1940	3.28	6.24	4.68	5.45	4.90	2.76	3.55	1.37	2.73	2.27	6.91	2.23	46.37
1941	3.24	1.88	3.57	1.89	2.30	4.18	5.23	1.57	1.32	1.15	2.37	2.82	31.52

PAWTUCKET, R. I. (Pumping Station, Board of Public Works). Elevation, 90 feet. Record May 1884 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.93	11.18	7.67	8.77	7.32	8.61	10.68	11.31	9.16	9.18	9.16	8.57	65.91
Year	1904	1886	1901	1904	1888	1884	1889	1927	1907	1890	1921	1901	1888
Min.	1.57	1.21	0.08	1.17	0.43	0.40	0.96	1.00	0.55	0.17	0.31	1.21	33.26
Year	1916	1901	1915	1896	1903	1894 & 1912	1893	1907	1914	1924	1917	1892	1910
1929	5.01	4.41	4.36	7.08	4.06	3.59	2.23	1.72	3.18	3.33	3.39	3.61	45.97
1930	2.81	2.80	3.52	1.75	2.64	2.38	2.96	2.60	0.91	4.68	3.38	2.63	33.06
1931	3.74	2.55	5.64	3.25	4.11	6.84	3.82	6.84	1.62	2.41	0.81	3.05	44.68
1932	4.81	1.95	5.19	1.91	2.22	1.96	2.49	6.20	9.04	4.89	5.32	2.02	48.00
1933	2.28	4.52	6.13	5.94	3.14	2.66	1.77	2.38	7.89	3.00	1.23	3.81	44.75
1934	3.58	4.70	3.85	3.66	2.83	3.37	1.33	2.59	4.55	2.99	4.16	3.37	40.98
1935	7.79	3.04	1.59	4.11	1.89	4.36	5.77	2.29	3.05	0.63	5.20	1.05	40.77
1936	8.64	4.81	8.76	3.71	1.93	2.53	3.01	2.90	5.25	3.23	1.29	10.35	56.41
1937	4.61	2.15	4.10	5.20	2.47	4.07	1.25	5.79	3.33	3.75	6.22	3.16	46.10
1938	7.57	2.98	2.82	2.25	4.54	8.82	8.32	2.81	5.44	2.79	3.69	3.66	55.69
Av. 54 yrs.	4.34	4.12	4.22	3.79	3.52	3.31	3.91	4.09	3.77	3.53	3.70	4.07	46.37
1939	2.21	4.59	4.63	4.07	0.85	3.28	1.22	5.74	2.24	4.57	0.82	3.26	37.48
1940	3.22	6.04	4.40	5.31	5.29	2.71	3.03	1.33	2.58	2.30	6.51	2.21	44.93
1941	2.90	1.90	3.63	1.48	2.28	3.76	4.41	1.28	1.66	0.93	2.48	2.87	29.58

PAWTUXET RIXER, R. I. (North Branch Watershed, Providence Water Works).
Record January 1916 to September 1932 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.78	6.10	6.40	6.28	5.99	7.93	8.36	9.09	8.79	6.71	9.22	5.63	56.42
Year	1923	1920 & 1926	1922	1920	1919	1920	1922	1922	1918	1917	1927	1927	1919
Min.	1.88	1.82	1.59	1.98	1.45	1.49	1.51	1.33	1.24	0.21	0.48	2.38	39.15
Year	1916	1923	1927	1922	1928	1924	1917	1916	1916	1924	1917	1924	1924
Av. 13 yrs.	3.64	3.67	3.84	4.17	3.54	4.21	4.82	4.77	3.80	3.28	4.29	3.74	47.77
1929	5.20	4.89	3.92	7.56	3.47	2.27	2.06	2.93	1.35	3.09	3.06	4.15	43.95
1930	2.86	2.88	3.23	2.03	2.74	3.05	3.33	3.00	1.35	3.36	4.65	3.10	35.58
1931	3.55	2.57	6.37	3.36	4.19	6.31	3.74	5.96	1.97	2.22	1.03	3.16	44.33
1932	6.16	2.38	6.16	1.97	2.57	2.75	2.57	6.44	11.75	——	——	——	——

PROVIDENCE, R. I. Elevation, 162.5 feet (mean high tide).
Record 1832 to 1876 inclusive, President Caswell, Brown University, College Hill; 1877 to 1933 inclusive, Hope Reservoir, City Engineer.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.78	11.31	9.75	9.45	10.57	9.65	10.26	11.45	9.79	9.19	9.15	9.40	63.50
Year	1923	1886	1876	1904	1868	1842	1898	1927	1918	1890	1854	1901	1898
Min.	0.60	0.33	0.11	0.67	0.58	0.33	0.62	0.30	0.25	0.23	0.40	0.97	30.51
Year	1843	1877	1915	1844	1903	1832	1909	1854	1855	1924	1917	1875	1846
1929	4.96	4.35	3.72	7.85	4.03	0.80	1.85	2.65	2.48	2.86	2.63	4.40	42.58
1930	3.19	3.14	3.43	1.04	2.78	2.97	4.73	2.47	1.16	3.80	3.39	2.82	34.92
1931	3.99	2.09	4.99	2.46	4.08	5.64	3.43	5.67	2.02	2.64	1.00	2.02	40.03
1932	6.61	3.04	5.98	2.12	2.41	3.19	2.85	5.23	9.38	5.05	5.02	1.90	52.78
Av. 101 yrs.	4.12	3.79	4.11	3.79	3.60	3.29	3.47	4.10	3.36	3.58	3.87	3.95	45.03
1933	2.50	3.64	6.71	——	——	——	——	——	——	——	——	——	——

PROVIDENCE, R. I. (U. S. Weather Bureau). Elevation, 182 feet.
Record January 1905 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.86	5.80	4.67	5.32	4.92	6.80	6.88	10.88	8.66	5.45	6.35	5.61	44.90
Year	1915	1909	1922	1913	1920	1920	1922	1927	1907	1913	1921	1912	1922
Min.	1.35	1.18	0.07	1.58	1.18	0.58	0.58	0.78	0.48	0.15	0.31	1.96	29.50
Year	1916	1905	1915	1915	1928	1914	1909	1916	1914	1924	1917	1924	1914
1929	4.49	3.04	3.17	5.94	3.45	0.96	1.41	2.44	2.27	2.70	2.47	3.84	36.18
1930	2.62	2.57	3.02	1.08	2.21	2.71	3.80	2.14	1.23	3.60	3.32	2.67	30.97
1931	3.42	1.98	4.14	2.68	4.07	4.95	3.03	4.99	1.37	2.40	0.83	3.20	37.06
1932	4.45	1.76	4.69	1.98	2.51	2.44	2.83	4.86	8.48	4.49	4.49	1.66	44.64
1933	2.02	3.15	5.70	5.33	4.10	2.85	2.24	2.68	6.20	2.59	1.35	2.96	41.17
1934	3.80	3.38	3.82	4.00	3.50	3.33	0.82	2.34	4.13	2.26	3.88	3.10	38.36
1935	6.02	2.64	1.60	3.37	1.51	4.53	2.72	1.14	2.95	0.76	4.29	1.05	32.58
1936	6.84	3.77	6.78	3.79	1.68	2.92	2.34	3.00	5.29	2.49	1.05	9.44	49.39
1937	4.61	1.75	3.82	5.27	2.54	3.14	1.16	4.13	3.01	4.06	5.42	3.22	42.13
1938	4.37	2.34	2.39	2.22	4.49	7.21	6.92	2.21	5.16	3.01	3.40	3.31	47.03
Av. 34 yrs.	3.59	2.90	3.27	3.33	2.87	3.13	3.27	3.45	3.37	2.80	2.90	3.36	38.24
1939	2.30	4.09	4.62	4.33	0.57	2.70	1.07	4.08	2.39	4.31	0.76	3.12	34.34
1940	2.50	3.13	3.69	5.30	5.01	2.22	3.24	0.99	2.57	1.86	6.38	2.15	39.04
1941	3.57	2.34	3.54	1.53	3.10	4.01	5.68	2.45	1.03	1.07	2.79	3.37	34.48

PROVIDENCE, R. I. (Sewage Disposal Works). Elevation, 25 feet.
Record January 1909 to August 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.80	6.58	7.43	6.06	5.58	7.77	7.91	12.76	10.22	7.25	8.72	6.53	50.81
Year	1915	1909	1912	1913	1920	1920	1916	1927	1918	1913	1921	1912	1919
Min.	1.60	2.09	0.07	1.80	1.32	0.49	0.48	1.05	0.74	0.16	0.38	2.40	35.19
Year	1916	1925	1915	1915	1923	1912	1909	1916	1914	1924	1917	1917	1914
1929	4.18	3.88	3.22	7.95	3.74	0.79	1.51	3.56	2.45	3.25	3.33	4.92	42.78
1930	3.06	2.89	3.45	1.35	2.61	3.04	4.01	3.08	1.29	4.09	2.27	3.03	34.17
1931	4.26	2.17	5.23	2.78	4.12	5.36	2.78	6.68	1.64	3.04	0.88	2.39	41.33
1932	5.31	1.86	4.81	2.05	2.48	2.42	1.70	4.87	10.01	5.18	5.42	1.90	48.01
1933	2.29	2.47	6.50	6.50	4.30	3.30	1.63	3.18	7.16	3.03	1.48	3.01	44.85
1934	4.02	3.68	4.00	4.08	3.78	3.91	0.54	2.49	4.26	2.53	3.68	3.11	40.08
1935	6.28	2.45	1.87	4.07	1.64	5.04	2.22	2.14	2.81	0.81	4.68	0.99	35.00
1936	6.79	3.55	7.58	4.08	1.15	2.79	2.85	3.11	5.84	1.44	4.60	10.24	54.02
1937	4.41	0.85	4.22	5.62	2.48	2.84	1.52	3.19	2.52	3.29	5.64	4.15	40.73
1938	6.95	1.37	2.17	2.60	4.15	6.56	6.42	2.87	6.10	3.23	3.55	2.32	48.29
Av. 30 yrs.	4.24	3.24	3.78	3.98	3.03	3.43	3.39	3.89	3.58	2.97	3.57	3.74	42.84
1939	4.03	4.47	4.86	4.36	0.63	2.73	1.02	4.56	3.10	4.54	1.00	2.28	37.58
1940	2.79	4.11	4.38	5.88	4.96	1.95	3.89	1.07	2.81	1.91	5.64	2.16	41.55
1941	3.63	1.73	3.32	1.52	2.51	4.59	4.46	2.13	1.14	0.77	2.67	3.16	31.63

PROVIDENCE, R. I. (Ladd Observatory). Elevation, 100 feet.
Record January 1908 to December 1913 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.58	6.76	7.14	6.34	5.24	3.87	4.31	5.55	3.85	6.92	6.60	6.78	45.83
Year	1910	1909	1912	1913	1908	1910	1908	1908	1909	1913	1911	1912	1913
Min.	3.14	2.40	1.47	1.84	2.12	0.67	0.69	2.76	1.04	1.79	1.22	2.52	37.60
Year	1911	1911	1910	1910	1913	1912	1909	1910	1908	1909	1908	1910	1910
Av. 6 yrs.	3.97	4.18	4.34	3.96	3.35	2.08	2.82	3.74	2.59	3.49	3.81	3.94	42.27

PROVIDENCE, R. I. (Fruit Hill Reservoir, Providence Water Works). Elevation, 275 feet.
Record January 1909 to December 1928 (Fruit Hill Reservoir); July 1929 to March 1933 (Longview Reservoir) inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.54	5.78	7.13	5.73	5.24	7.82	9.24	9.60	9.32	6.50	8.80	6.42	53.68
Year	1915	1920	1912	1913	1916	1920	1922	1927	1918	1917	1921	1912	1922
Min.	1.54	1.76	0.07	1.86	1.04	0.44	0.94	0.81	0.44	0.18	0.36	2.28	33.96
Year	1916	1923	1915	1910	1923	1912	1909	1916	1914	1924	1917	1919	1910
Av. 20 yrs.	3.87	3.54	3.57	3.74	3.00	3.19	3.88	4.35	2.99	2.93	3.64	3.84	42.54
1929	—	—	—	—	—	—	1.84	2.49	2.28	3.44	2.93	4.52	—
1930	2.96	2.91	3.45	1.87	2.72	2.72	3.21	2.77	1.79	4.81	4.44	2.63	36.28
1931	3.34	2.43	5.55	3.23	3.78	6.50	3.56	5.05	1.91	2.18	0.89	3.29	41.71
1932	5.81	1.79	5.88	2.01	2.16	2.62	2.85	5.62	7.40	5.25	5.82	1.74	48.95
1933	2.15	3.63	6.59	—	—	—	—	—	—	—	—	—	—

SCITUATE, R. I. (Rocky Hill, Providence Water Supply Board). Elevation, 440 feet.
Record January 1916 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.40	6.06	6.15	6.46	5.75	6.98	8.43	11.14	8.59	6.50	9.01	5.59	57.79
Year	1923	1916	1919	1920	1919	1922	1922	1922	1918	1917	1927	1927	1919
Min.	1.63	1.78	1.63	2.12	1.39	1.27	0.97	1.05	1.31	0.19	0.50	2.15	36.16
Year	1922	1923	1927	1922	1923	1924	1917	1916	1916	1924	1917	1924	1924
1929	5.01	3.99	4.03	6.85	3.67	2.06	1.86	2.39	1.20	2.10	3.04	3.09	39.29
1930	2.91	2.53	3.31	1.70	3.05	2.70	2.56	1.99	2.08	2.88	4.44	2.32	32.47
1931	3.45	2.30	5.40	3.34	4.29	6.60	3.94	6.04	1.56	1.91	1.01	3.16	43.00
1932	5.77	2.31	6.29	2.33	2.24	3.13	1.99	7.12	10.25	5.83	6.08	2.04	55.38
1933	2.08	3.86	6.04	5.94	3.04	3.58	1.70	3.10	6.31	3.62	1.50	3.54	44.31
1934	4.16	5.93	4.13	4.93	4.36	5.51	2.30	4.92	8.11	3.38	4.39	3.42	55.54
1935	7.44	2.98	1.86	3.96	2.54	5.16	2.95	1.02	3.47	0.75	5.06	0.80	37.99
1936	7.70	3.05	7.88	3.56	2.36	2.92	2.22	3.16	7.03	2.04	1.26	9.49	52.67
1937	5.03	2.78	4.15	4.44	2.83	2.92	1.91	7.45	4.08	3.62	7.90	2.85	49.96
1938	6.19	2.68	2.65	2.25	4.04	8.86	13.75	3.13	7.21	2.60	3.60	3.25	60.21
Av. 23 yrs.	4.12	3.35	4.02	3.98	3.39	4.24	4.14	4.48	4.29	3.10	3.96	3.52	46.59
1939	2.84	4.72	4.70	4.22	1.39	3.20	1.53	5.60	2.69	5.68	1.11	3.19	40.87
1940	2.19	6.76	4.08	5.56	5.29	2.65	4.24	2.03	2.54	2.03	6.55	2.35	46.27
1941	2.92	2.60	2.55	1.47	3.40	4.50	4.88	3.69	0.27	1.79	3.34	3.50	34.91

SCITUATE, R. I. (South Scituate, Providence Water Supply Board). Elevation, 280 feet.
Record January 1916 to December 1925 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.66	5.88	6.61	6.50	5.92	9.03	9.03	8.08	7.97	6.77	8.20	5.39	55.84
Year	1923	1916	1922	1924	1919	1920	1921	1922	1918	1917	1921	1923	1920
Min.	1.80	1.82	1.91	1.97	1.47	1.67	1.65	1.25	1.09	0.22	0.43	2.42	41.00
Year	1916	1923	1918	1922	1923	1924	1924	1916	1916	1924	1917	1916	1924
Av. 10 yrs.	3.83	3.42	4.27	4.42	3.77	4.68	5.42	4.45	4.01	2.77	3.82	3.53	48.39

SCITUATE, R. I. (North Scituate).
Record January 1926 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1926	3.40	7.62	3.62	2.25	2.44	2.10	4.24	4.22	1.93	5.16	5.66	3.96	46.60
1927	3.13	3.55	1.72	2.56	3.43	2.98	4.77	8.28	2.71	5.07	9.46	5.88	53.54
1928	2.61	4.18	2.31	5.25	1.47	4.25	6.00	7.58	4.41	3.92	2.24	3.80	48.02
1929	5.25	5.12	4.19	7.95	2.82	3.12	2.20	2.94	1.30	3.42	3.12	4.42	45.85
1930	2.92	3.09	3.33	2.04	2.60	3.51	4.01	2.81	1.65	3.80	5.02	3.09	37.87
1931	4.16	2.77	7.27	3.81	3.99	6.87	3.17	5.31	1.84	2.47	1.04	3.14	45.84
1932	6.25	2.64	6.49	1.86	2.36	3.10	2.31	5.86	12.09	6.45	7.60	2.13	59.14
1933	2.29	4.12	7.47	6.50	3.77	3.87	2.33	3.26	7.98	3.37	1.67	4.15	50.78
1934	4.05	4.46	5.12	5.48	3.96	4.40	1.89	3.39	7.23	3.06	4.37	3.76	51.17
1935	5.88	3.16	1.82	4.30	2.56	5.47	4.16	1.40	3.58	1.15	6.03	0.90	40.41
1936	9.44	4.04	9.75	3.66	1.74	3.45	2.51	3.22	8.29	1.15	1.28	10.17	58.70
1937	5.14	2.37	4.11	5.55	3.24	3.90	1.73	7.56	4.67	4.41	8.64	3.08	54.40
1938	5.43	2.61	2.75	2.32	4.46	9.32	11.02	3.06	6.99	3.14	4.09	3.94	59.13
Av. 13 yrs.	4.61	3.83	4.61	4.12	2.99	4.34	3.87	4.53	4.97	3.58	4.63	4.03	50.11
1939	3.11	5.25	5.91	4.32	0.86	3.26	1.22	7.64	3.58	6.19	1.57	3.57	46.48

SCITUATE ("Westcott"), R. I. (Providence Water Supply).
Record August 1928 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1928	———	———	———	———	———	———	———	5.21	3.53	3.53	2.39	3.46	———
1929	5.76	6.07	4.09	7.86	2.85	3.04	1.87	3.03	1.29	2.88	2.93	4.39	46.06
1930	2.62	2.98	3.25	2.24	2.53	2.88	3.29	3.25	0.94	3.49	4.51	3.45	35.43
1931	2.90	2.58	5.61	3.35	4.60	6.13	4.31	6.25	1.93	2.14	1.03	3.04	43.87
1932	6.08	2.21	6.49	1.95	2.72	2.63	2.86	5.45	11.50	6.68	7.27	2.66	58.50
1933	2.44	4.02	7.18	6.37	4.44	4.96	2.32	3.30	8.48	3.39	1.28	3.13	51.31
1934	3.87	4.42	4.82	5.49	3.52	4.41	2.33	3.46	7.43	3.23	4.57	3.69	51.24
1935	7.63	3.12	1.90	4.96	2.18	4.90	4.79	1.95	3.33	1.04	5.91	0.87	42.58
1936	8.35	4.82	10.07	3.70	1.80	3.07	2.74	3.11	8.15	2.16	1.48	9.92	59.35
1937	4.97	2.42	4.03	5.57	3.44	3.73	1.48	6.99	4.21	3.78	8.21	2.80	51.63
1938	5.83	3.22	2.56	2.15	3.86	8.34	10.37	3.08	6.67	2.60	4.55	3.69	56.92
Av. 10 yrs.	5.05	3.59	5.00	4.36	3.19	4.41	3.64	3.99	5.39	3.14	4.17	3.76	49.69
1939	3.27	4.95	5.35	4.44	0.74	2.38	1.03	6.66	3.66	5.85	1.48	3.25	43.06
1940	2.71	6.01	4.09	6.37	5.54	2.40	4.96	2.12	2.42	1.89	6.40	1.81	46.72
1941	3.24	3.66	2.92	1.37	3.35	5.17	5.87	4.33	0.17	1.56	3.40	3.70	38.74

WESTERLY, R. I. (Everett Barnes). Elevation, 30 feet.
Record January 1893 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.21	6.93	8.21	7.93	8.14	6.11	8.89	10.12	10.11	9.01	11.06	9.38	61.52
Year	1915	1893	1899	1913	1898	1920	1916	1927	1919	1898	1927	1901	1898
Min.	1.33	0.68	0.35	1.14	0.75	0.21	0.29	0.73	0.62	0.29	0.24	1.30	34.75
Year	1916	1895	1915	1896	1903	1894	1894	1902	1914	1924	1917	1896	1914
1929	4.19	4.14	4.98	6.01	3.61	0.43	2.27	2.88	4.31	1.90	2.63	3.97	41.32
1930	3.13	4.35	2.64	1.82	3.52	2.80	2.81	1.79	0.73	3.43	4.45	2.56	34.03
1931	4.97	2.08	5.38	2.50	4.94	4.25	2.83	5.89	0.66	2.95	1.09	4.03	41.57
1932	6.84	2.46	6.02	1.92	2.46	2.40	3.22	3.11	15.19	8.98	8.07	2.67	63.34
1933	2.65	4.54	6.02	5.72	4.12	2.23	2.08	5.26	7.20	3.38	3.00	3.36	49.56
1934	3.53	3.75	4.11	5.73	4.88	3.19	1.93	1.92	4.53	3.16	4.14	3.45	44.32
1935	6.28	3.44	2.39	3.13	1.73	5.34	6.73	0.85	4.20	1.59	6.27	1.00	42.95
1936	7.39	4.22	9.07	3.17	1.45	6.11	1.09	4.06	7.18	2.46	1.19	10.54	57.93
1937	5.41	2.01	4.67	4.96	3.25	4.01	1.17	2.72	3.31	3.46	6.65	3.21	44.83
1938	3.60	2.39	2.71	3.30	3.86	6.14	6.30	3.74	5.88	2.91	3.14	3.61	47.58
Av. 46 yrs.	4.04	3.72	4.07	3.92	3.45	2.84	3.02	3.71	3.70	3.42	3.69	3.95	43.53
1939	3.93	6.20	5.56	5.59	1.64	1.97	1.52	7.31	1.47	4.87	1.26	2.22	43.54
1940	2.71	3.57	4.40	6.05	4.27	2.30	3.39	0.78	3.38	1.72	6.05	2.92	41.54
1941	3.59	2.28	2.70	1.73	2.26	5.14	4.75	3.51	0.29	2.36	3.51	2.72	34.84

WOONSOCKET, R. I. (Woonsocket Water Works). Elevation, 160 feet.
Record January 1886 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.02	8.98	8.89	9.51	9.19	9.43	11.95	9.78	9.14	9.93	8.58	8.71	61.81
Year	1891	1886	1890	1901	1893	1922	1898	1922	1888	1890	1895	1901	1898
Min.	0.55	1.15	0.09	1.04	0.50	0.76	0.84	0.87	0.44	0.16	0.57	1.50	34.54
Year	1922	1895	1915	1896	1903	1912	1917	1907	1914	1924	1917	1892	1910
1929	5.05	4.75	4.75	7.58	3.74	1.36	1.40	1.55	3.89	3.31	1.63	4.78	43.79
1930	3.20	2.80	4.12	2.13	2.51	1.93	1.15	2.10	1.05	4.03	4.36	3.29	32.67
1931	3.90	2.84	5.33	3.38	4.94	7.03	3.27	5.66	1.31	2.18	0.82	2.87	43.53
1932	5.73	2.38	5.68	2.72	1.47	2.86	1.89	6.03	13.32	5.47	4.84	1.95	54.34
1933	2.18	4.12	6.34	6.74	2.12	2.00	2.02	2.63	7.39	1.90	1.23	4.31	42.98
1934	4.30	3.46	2.71	5.00	4.32	4.19	2.21	3.10	6.29	3.66	2.64	4.32	46.20
1935	7.42	3.46	1.65	4.93	2.18	5.00	3.24	2.78	2.97	0.87	5.58	1.29	41.37
1936	8.69	3.09	10.05	3.64	2.47	3.09	2.97	4.81	5.56	0.71	1.68	9.87	56.63
1937	4.96	2.99	4.10	5.11	4.08	3.48	2.36	9.65	4.52	3.66	7.22	4.01	56.14
1938	5.44	3.25	2.64	2.82	4.61	10.15	12.76	3.12	6.75	2.05	3.59	3.66	60.84
Av. 58 yrs.	4.34	3.88	4.37	4.01	3.63	3.34	4.12	4.20	4.05	3.47	3.85	4.00	47.26
1939	2.98	4.25	5.07	4.02	0.60	2.84	1.92	5.70	1.50	4.50	1.03	2.89	37.30
1940	3.16	6.05	3.55	5.07	4.17	2.28	3.70	1.62	2.00	1.46	5.93	2.07	41.06
1941	3.41	3.65	2.75	1.65	2.80	4.99	5.38	1.87	1.41	1.11	2.27	3.27	34.56

Rainfall Records for Connecticut

ANSONIA, CONN. (Ansonia Water Co.). Elevation, 40 feet.
Record January 1923 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1923	7.80	1.86	4.04	4.39	2.86	4.07	0.76	1.61	1.82	7.40	5.96	5.66	48.23
1924	4.86	3.28	1.87	8.19	6.50	1.47	1.15	5.90	4.79	0.25	2.48	2.78	43.47
1925	4.27	4.54	4.63	2.34	3.96	3.85	5.08	4.41	3.39	4.35	3.51	2.81	47.14
1926	2.26	5.51	3.96	3.23	2.36	1.78	2.52	6.85	3.56	4.00	7.88	4.48	48.39
1927	3.06	3.51	1.77	2.98	4.77	3.24	4.30	10.70	1.70	5.46	7.73	5.15	54.37
1928	2.92	4.68	2.79	4.71	2.11	7.32	7.14	4.39	4.81	0.90	1.34	3.37	46.48
1929	4.37	4.52	3.24	7.54	4.65	1.47	2.03	4.64	1.68	4.29	2.09	3.52	44.04
1930	2.61	2.42	4.02	2.71	4.04	3.31	1.57	2.69	0.86	1.75	5.84	3.27	35.09
1931	2.54	2.25	5.16	3.66	4.41	5.30	3.20	3.73	3.36	2.11	0.72	3.36	39.80
1932	4.69	2.92	4.86	3.03	2.04	1.92	3.05	3.46	4.52	5.84	7.72	2.06	46.11
1933	1.83	4.18	6.15	5.00	1.59	3.69	2.45	7.76	5.22	4.31	0.65	3.74	46.57
1934	3.79	3.58	2.71	7.45	5.85	5.96	3.63	1.76	12.94	2.72	3.24	4.99	58.62
1935	5.22	3.47	2.34	2.16	1.07	5.20	4.63	2.91	4.22	0.80	4.58	0.84	37.44
1936	7.64	2.76	6.66	4.34	2.93	6.14	2.36	2.82	4.13	4.57	0.85	7.93	53.13
1937	6.22	3.31	3.97	6.07	2.83	4.32	3.26	6.34	3.51	5.61	6.08	2.46	53.98
1938	4.30	2.77	1.85	2.65	4.22	7.15	6.91	3.09	13.13	2.27	3.74	4.03	56.11
Av. 16 yrs.	4.28	3.47	3.75	4.40	3.51	4.14	3.38	4.57	4.60	3.54	4.02	3.78	47.44
1939	4.11	5.08	6.07	4.31	1.30	3.08	2.02	5.28	1.83	4.75	2.98	3.31	44.12
1940	3.88	2.95	6.79	6.85	5.19	6.37	4.63	2.82	3.19	2.24	5.87	2.59	53.37
1941	2.93	3.08	2.46	1.48	2.96	4.39	5.22	4.19	0.72	2.20	4.14	4.39	38.16

BARKHAMSTEAD, CONN. Elevation, 450 feet.
Record February 1933 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	4.98	3.34	4.59	7.72	4.94	5.47	7.11	9.84	5.68	5.36	8.79	5.03	51.90
Year	1924	1925	1925	1924	1924	1928	1928	1928	1924	1926	1927	1927	1927
Min.	2.01	1.16	0.83	1.63	1.40	1.98	1.49	1.65	0.99	0.46	1.72	0.47	39.89
Year	1927	1923	1924	1923	1926	1924	1924	1923	1923	1928	1928	1928	1926
1929	3.87	3.14	2.86	7.59	4.02	1.61	2.07	3.68	3.08	5.10	2.62	3.80	43.44
1930	2.07	1.76	3.56	2.38	3.53	4.02	3.12	3.81	1.81	1.27	4.36	1.59	33.28
1931	2.75	1.64	3.99	2.61	7.50	6.13	2.02	3.37	1.02	2.25	1.40	3.24	37.92
1932	4.84	1.85	4.98	1.59	2.21	3.87	4.21	4.67	3.54	6.27	7.13	1.61	46.77
1933	2.03	3.22	5.10	4.72	1.78	2.57	1.66	6.70	6.47	2.40	0.83	3.31	40.79
1934	3.58	2.43	2.56	5.40	5.26	3.35	4.03	3.03	10.73	2.38	3.53	3.83	50.11
1935	5.00	2.69	1.91	2.34	1.39	6.17	3.16	1.28	3.81	0.67	4.06	0.81	33.29
1936	5.84	3.01	8.02	3.33	2.24	5.71	1.52	4.59	2.98	4.79	1.41	6.25	49.69
1937	5.22	3.49	2.76	3.80	2.90	4.77	3.69	3.66	3.90	4.79	4.78	2.04	45.80
1938	4.71	1.81	1.15	2.90	3.23	5.46	9.27	2.94	11.21	2.66	4.36	4.11	53.81
Av. 15 yrs.	3.62	2.65	3.36	3.81	3.37	4.02	3.95	4.43	4.45	3.24	3.87	2.90	43.67
1939	2.93	4.55	4.31	4.43	0.74	1.08	1.54	5.10	1.34	4.51	1.62	2.53	34.68
1940	2.78	3.55	4.56	5.37	4.17	4.82	2.65	2.44	2.28	2.94	5.18	2.59	43.33
1941	2.83	3.04	2.17	0.93	2.98	5.44	5.91	3.13	2.14	1.95	3.25	4.13	37.90

BRANFORD, CONN. (New Haven Water Co.). Elevation, 20 feet.
Record January 1924 to December 1931 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1924	3.71	1.97	0.76	5.54	5.35	1.64	0.66	3.25	2.59	0.96	1.99	2.72	31.14
1925	1.51	3.07	3.77	1.94	3.89	3.21	6.29	1.54	3.06	4.72	3.54	2.85	39.39
1926	2.42	2.50	3.44	2.90	1.16	3.00	2.82	4.83	2.73	3.99	4.59	2.72	37.10
1927	2.06	2.14	1.84	2.26	4.68	3.10	7.62	9.20	1.77	4.19	6.33	4.76	49.95
1928	1.90	4.60	1.93	4.13	1.88	6.22	7.85	2.40	2.92	2.94	3.41	1.78	41.96
1929	2.83	3.23	3.08	6.64	3.54	1.77	3.06	3.54	1.84	2.79	2.49	3.75	38.56
1930	2.37	2.37	2.47	2.12	4.27	4.31	2.33	1.31	0.40	2.23	5.92	2.06	32.16
1931	2.85	1.20	4.63	2.82	5.38	4.16	3.98	2.92	1.91	2.27	0.94	3.21	36.27
Av. 8 yrs.	2.46	2.64	2.74	3.54	3.77	3.43	4.33	3.62	2.15	3.01	3.65	2.98	38.32

BRIDGEPORT, CONN. (Bridgeport Hydraulic Co.). Elevation, 20 feet.
Record January 1894 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.67	6.32	9.64	9.41	10.18	8.48	18.77	12.02	8.04	10.18	7.60	9.85	64.23
Year	1915	1896	1899	1901	1898	1903	1897	1927	1907	1913	1898	1901	1901
Min.	1.66	0.85	0.29	0.69	0.49	0.48	0.69	0.20	0.25	0.30	1.00	1.59	36.46
Year	1916	1901	1915	1896	1903	1898	1894	1899	1914	1924	1908	1928	1910
1929	3.70	4.64	3.06	7.14	4.09	1.77	1.87	2.68	1.97	3.84	2.13	3.82	40.71
1930	2.79	2.92	3.23	2.52	3.71	3.99	1.63	3.75	1.87	1.98	6.58	3.04	38.01
1931	2.49	2.43	4.64	5.00	4.28	4.47	3.50	4.43	2.97	2.53	0.85	3.44	41.03
1932	5.22	2.74	5.38	2.03	2.42	2.22	3.13	3.64	3.15	5.31	6.12	2.49	43.85
1933	1.79	4.32	6.14	5.60	2.38	2.16	3.06	9.74	4.91	2.72	0.81	3.57	47.20
1934	3.39	4.52	3.97	5.34	4.97	3.83	3.74	2.67	12.17	2.85	3.43	3.57	54.45
1935	6.33	3.56	2.93	1.76	2.12	4.71	4.29	1.86	4.64	1.13	4.97	0.82	39.12
1936	7.88	2.71	6.54	4.00	2.54	6.89	1.67	3.66	4.66	4.69	1.06	8.10	54.40
1937	7.19	2.20	4.10	4.97	2.28	4.34	4.07	7.12	3.46	5.36	4.93	2.51	52.53
1938	4.66	2.62	2.52	2.94	4.64	7.19	6.86	3.21	14.15	1.89	4.10	3.31	58.09
Av. 45 yrs.	3.99	3.76	4.16	3.93	3.65	3.46	4.24	4.52	4.01	3.78	3.53	3.94	46.97
1939	4.14	5.77	5.40	4.94	0.69	4.78	2.36	6.63	1.50	6.29	1.80	3.28	47.58
1940	3.77	2.96	5.84	6.46	7.00	4.08	3.15	3.77	3.81	2.57	5.38	2.42	51.21
1941	3.05	3.10	2.38	1.88	2.37	7.30	5.80	4.85	0.09	3.25	4.61	4.35	43.03

BRISTOL, CONN. (Bristol Water Department).
Record from January 1911 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1911	3.55	1.10	5.15	2.67	2.80	2.65	7.53	6.85	4.15	8.75	4.76	2.88	52.84
1912	1.58	2.90	6.54	7.23	4.93	1.06	1.90	3.18	2.57	5.57	6.00	3.84	47.30
1913	4.07	1.40	6.40	5.08	3.75	1.80	1.93	4.57	3.34	10.93	3.25	2.70	49.22
1914	3.37	1.93*	4.05	4.05	2.50	3.22	4.58	3.88	0.25	3.75	2.30	2.65	36.53
1915	7.90	5.00	0.06*	1.66	3.02	2.58	6.05	6.84	3.95	3.03	2.96	4.34	47.39
1916	1.35	3.85	0.55	1.98	3.95	5.28	4.38	6.34	5.07	1.38	1.08	3.94	39.15
1917	3.50	4.82	4.40	2.12	4.33	7.79	4.01	4.11	0.56	0.89	1.18	1.25	38.96
1918	2.00	4.22	1.28	4.66	2.18	3.82	4.59	2.62	6.77	1.19	3.19	4.04	40.56
1919	2.02	3.29	6.57	3.51	7.68	1.67	4.10	5.01	6.12	3.33	5.29	2.75	51.34
1920	3.39	3.45	6.25	6.01	4.06	7.57	5.85	1.95	8.52	0.78	4.48	6.11	58.42
1921	2.33	4.35	2.52	4.75	2.90	3.48	6.09	2.68	4.70	1.63	4.94	3.37	43.74
1922	1.15	2.14	6.57	1.88	5.58	6.33	7.81	5.05	2.71	3.74	1.38	2.08	46.42
1923	7.78	1.33	2.57	5.14	3.44	6.54	2.81	1.61	3.49	5.74	3.14	3.49	47.08
1924	4.33	0.91	0.56	5.65	4.36	3.38	1.75	4.14	5.28	0.22	3.06	2.13	35.77
1925	1.71	3.66	4.56	2.38	3.36	4.70	5.23	3.67	3.38	3.54	2.98	2.90	42.07
1926	1.85	5.04	3.12	3.22	2.04	1.59	3.67	4.07	2.96	5.33	6.09	3.13	42.11
1927	2.03	0.44	1.86	2.56	5.22	2.82	8.30	5.22	2.13	6.57	7.45	4.19	48.79
1928	2.10	2.90	1.79	2.34	4.23	7.24	4.19	4.69	3.50	1.28	1.93	1.46	37.65
1929	3.87	4.05	2.08	6.69	4.96	2.87	1.92	3.19	2.95	4.44	2.65	4.21	43.88
1930	2.45	2.90	2.88	2.36	3.72	4.01	3.36	3.18	3.61	3.35	7.01	2.02	40.85
1931	3.90	1.70	5.11	3.44	5.33	4.39	2.36	3.64	1.11	2.20	1.42	2.82	37.42
1932	5.36	2.82	5.38	2.27	2.91	2.01	2.74	7.99	3.49	7.45	9.26	1.85	53.53
1933	1.68	3.42	6.43	6.54	1.50	2.71	2.21	6.90	5.39	2.46	0.96	3.48	43.68
1934	3.70	4.65	5.78	4.44	6.50	4.83	4.29	2.87	14.93	2.49	4.79	3.61	62.88
1935	4.92	3.51	2.18	3.70	3.21	3.66	5.64	1.26	4.67	0.68	3.83	1.02	38.28
1936	6.71	2.66	9.01	3.58	2.63	4.62	3.94	4.05	3.24	4.58	1.24	8.21	54.47
1937	6.52	2.94	3.48	4.79	4.59	6.14	3.82	7.05	3.93	5.21	6.13	2.44	57.04
1938	4.24	1.39	1.42	4.15	5.16	7.25	11.52	5.29	12.02	2.48	3.18	5.74	63.84
Av. 28 yrs.	3.55	2.96	3.88	3.89	3.96	4.14	4.52	4.35	4.45	3.68	3.78	3.31	46.47
1939	4.80	4.06	5.00	5.90	1.28	2.58	1.57	9.93	2.94	3.96	2.79	3.01	47.82
1940	4.16	2.66	3.51	2.40	5.05	3.47	2.43	3.02	4.13	1.70	5.54	2.78	40.85
1941	2.26	4.82	2.04	1.37	2.16	5.78	5.59	3.87	0.57	2.95	3.33	4.41	39.15

*Interpolated.

BURLINGTON, CONN. (Upper Phelps Brook, Hartford Water Works). Elevation, 740 feet.
Record April 1918 to December 1935 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.07	5.09	6.11	9.16	8.33	8.85	7.46	6.47	7.70	6.13	8.84	5.24	57.36
Year	1923	1920	1919	1924	1919	1920	1927	1927	1920	1923	1927	1927	1919
Min.	1.46	1.81	1.34	1.66	2.10	1.62	0.98	1.88	1.71	0.14	1.34	2.16	42.08
Year	1922	1923	1924	1922	1926	1919	1924	1925	1927	1924	1922	1924	1926
1929	4.71	4.48	4.06	7.87	5.83	2.88	1.01	1.52	3.25	5.51	2.92	3.97	48.01
1930	2.61	2.28	4.27	2.58	4.34	4.18	3.60	3.30	1.48	2.05	5.39	1.83	37.91
1931	3.33	2.40	4.94	3.24	7.58	4.32	2.48	4.26	0.88	2.30	1.62	2.73	40.08
1932	5.58	2.65	5.04	2.50	2.85	3.49	4.19	6.45	3.85	6.82	8.57	1.87	53.86
1933	1.98	3.87	6.79	4.76	1.91	1.44	2.27	6.57	7.19	2.89	0.97	3.84	44.48
1934	4.12	2.86	2.85	5.95	6.43	4.44	2.98	4.41	13.38	2.56	4.87	3.08	58.03
1935	5.71	3.44	2.18	3.08	2.11	5.18	2.68	1.44	5.04	0.53	3.73	0.93	36.05
Av. 17 yrs.	3.65	3.35	3.99	4.39	4.33	3.92	3.59	3.96	4.53	3.33	4.39	3.04	46.47

BURLINGTON, CONN. (Phelps Brook Dam, Hartford Water Works). Elevation, 497 feet.
Record January 1918 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.87	3.77	5.48	8.08	8.76	7.04	6.69	5.80	8.84	6.35	8.01	5.37	51.06
Year	1923	1928	1919	1924	1919	1920	1927	1927	1920	1923	1927	1920	1920
Min.	1.54	1.57	0.73	1.94	1.78	1.17	0.75	1.82	1.94	0.11	1.19	1.04	32.51
Year	1922	1922	1924	1927	1928	1919	1924	1920	1922	1924	1922	1921	1928
1929	4.83	2.48	2.85	5.68	4.88	2.79	1.37	1.69	2.82	5.14	2.93	3.76	41.22
1930	2.14	1.98	3.71	2.43	4.57	3.70	3.60	3.23	2.98	2.14	4.45	1.54	36.47
1931	2.79	1.72	4.01	2.86	7.20	4.22	2.49	3.66	0.88	2.27	1.29	2.96	36.35
1932	4.73	2.07	5.28	2.13	2.59	3.93	5.34	6.58	3.48	6.21	8.52	1.69	52.55
1933	1.93	4.05	5.70	4.61	1.81	2.13	3.05	7.04	6.25	2.97	0.94	3.68	44.16
1934	3.96	2.23	2.74	6.34	6.36	3.76	2.98	4.95	14.84	2.38	3.56	4.39	58.49
1935	5.93	3.06	2.16	2.56	1.88	4.72	4.77	1.14	4.94	0.56	3.93	1.23	36.88
1936	6.41	2.21	9.22	3.72	3.69	3.74	3.45	6.23	3.03	5.03	1.45	7.37	55.55
1937	6.13	3.67	3.32	4.26	5.17	6.87	6.51	7.91	4.64	5.88	6.15	2.55	63.06
1938	4.62	2.29	1.64	3.82	4.06	6.02	12.20	3.10	11.19	2.52	3.70	3.90	59.06
Av. 21 yrs.	3.44	2.63	3.52	3.88	4.06	3.82	4.33	4.11	4.80	3.06	3.81	3.16	44.62
1939	3.00	3.05	4.53	4.73	1.63	2.96	2.68	9.02	2.75	3.50	3.04	2.89	43.78
1940	3.79	2.63	5.09	5.64	4.63	4.65	3.29	2.32	3.82	3.04	5.93	3.07	47.90
1941	1.73	3.97	0.95	0.87	3.19	5.84	5.06	2.61	1.48	1.67	4.07	4.63	36.07

BURLINGTON, CONN. (Whigville, New Britain Water Works). Elevation, 570 feet.
Record January 1921 to December 1940 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1921	2.61	2.60	3.30	4.18	3.05	2.59	5.95	1.63	3.23	1.53	4.64	2.53	37.84
1922	2.15	2.38	4.90	2.06	5.80	4.44	8.09	4.97	2.25	3.21	1.22	2.97	44.44
1923	5.36	1.81*	1.15	4.64	2.64	4.89	3.72	1.31	2.48	6.66	3.24	3.45	41.35
1924	4.53	2.22	1.01	6.86	4.90	3.15	1.17	3.98	5.27	0.18	2.63	2.06	37.96
1925	2.82	3.65	4.40	2.05	3.02	5.60	6.96	1.95	3.04	3.76	3.07	2.91	43.23
1926	2.41	3.10	2.05	3.62	2.12	1.76	3.32	4.20	2.68	4.70	5.47	2.62	38.05
1927	2.05	2.45	1.93	2.59	5.63	2.16	6.69	4.86	2.01	5.00	6.98	5.07	47.42
1928	1.78	3.75	1.09	4.38	2.39	5.12	5.06	5.22	3.98	1.20	1.22	2.01	37.20
1929	5.39	3.56	3.25	7.28	4.58	2.66	1.23	2.11	3.55	4.50	3.31	4.05	45.47
1930	2.40	2.29	3.47	2.48	4.87	3.05	3.05	2.86	2.66	2.51	4.19	2.14	35.97
1931	2.81	1.92	3.67	3.10	5.42	4.36	2.10	2.91	0.99	2.05	1.00	3.18	33.51
1932	5.13	2.31	4.56	2.75	2.88	2.80	3.15	7.07	3.02	6.41	8.08	1.76	49.92
1933	1.85	3.30	4.61	5.26	1.36	1.85	2.54	5.90	5.02	2.67	0.76	3.27	38.39
1934	3.71	2.86	2.75	5.98	6.34	3.46	3.73	3.22	13.52	2.46	3.15	4.33	55.51
1935	4.66	3.03	2.14	3.10	2.29	4.41	6.40	0.98	4.44	0.44	3.77	1.00	36.66
1936	6.72	2.70	7.75	3.41	2.69	3.57	2.58	5.18	3.09	4.37	1.33	7.20	50.59
1937	6.25	3.06	3.32	4.05	4.82	5.94	5.06	7.54	5.10	5.47	5.82	2.22	58.65
1938	5.24	2.26	1.72	3.83	4.37	6.22	7.98	3.87	11.65	2.33	3.64	3.79	56.90
Av. 18 yrs.	3.77	2.74	3.17	3.98	3.84	3.78	4.38	3.88	4.33	3.30	3.53	3.14	43.84
1939	3.25	3.42	4.70	4.93	1.66	2.35	1.17	8.64	2.88	3.29	2.76	2.82	41.87
1940	3.77	2.80	5.40	6.42	3.83	5.06	2.66	2.58	3.07	2.62	5.38	2.74	46.33
1941	2.33	3.90	2.10	——	——	——	——	3.25	0.99	2.12	3.63	3.99	——

*Interpolated.

CANAAN, CONN. (Falls Village). Elevation, 600 feet.
Record May 1889 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1889	——	——	——	——	5.10	4.31	9.49	2.60	4.47	3.55	5.88	3.01	——
1890	2.53	3.40	5.86	2.06	4.73	3.24	6.43	6.06	6.00	5.40	1.00	4.56	51.27
1891	7.44	3.71	2.17	3.75	1.73	3.62	1.62	3.37	0.94	1.60	3.11	4.88	37.94
1892	5.71	1.36	2.76	0.70	6.43	5.74	6.09	6.13	3.45	1.22	3.76	1.24	44.59
1893	2.71	6.23	3.05	2.65	5.52	2.49	3.33	5.50	3.89	3.99	1.84	4.16	45.36
1894	2.03	2.17	1.63	2.55	5.57	0.86	1.35	0.57	4.44	4.06	4.15	4.58	33.96
1895	3.08	1.36	2.44	4.15	2.49	2.77	3.00	2.77	2.24	5.38	3.80	4.67	38.15
1896	1.11	6.38	5.59	1.71	3.39	2.53	6.67	4.25	6.25	3.10	2.80	2.33	46.11
1897	3.25	2.40	2.44	3.00	3.73	5.22	10.57	4.77	5.94	0.78	5.94	4.63	52.67
1898	4.58	3.06	2.44	4.35	6.35	2.99	2.23	8.22	3.73	3.74	6.30	2.42	50.41
1899	3.20	4.69	5.25	1.23	2.68	3.99	7.09	0.88	4.82	1.63	1.47	2.35	39.28
1900	2.72	6.00	4.50	1.69	5.58	4.45	5.02	1.87	1.85	2.41	5.55	2.71	44.35
1901	1.48	0.84	6.09	6.45	6.07	1.84	4.39	9.04	4.21	3.97	2.42	8.16	54.96
1902	2.12	4.38	4.59	3.79	2.65	4.83	7.42	3.24	8.44	4.96	1.01	6.48	53.91
1903	2.63	4.39	4.48	2.85	0.97	10.01	2.64	5.93	2.02	6.04	2.42	3.96	48.34
1904	2.92	2.29	3.10	2.14	4.49	3.78	6.04	2.98	7.44	2.98	1.49	2.58	42.23
1905	4.82	0.82	3.72	2.50	1.45	3.31	4.79	3.79	6.51	3.11	2.54	3.02	40.38
1906	2.05	2.71	3.97	4.27	5.13	3.74	5.17	2.85	3.18	3.25	1.69	2.92	40.93
1907	2.44	1.76	1.26	2.18	4.04	4.19	3.21	2.27	12.43	7.81	4.80	4.55	50.94
1908	3.03	3.74	2.67	2.81	3.25	3.03	6.65	4.59	1.29	1.52	0.88	2.49	35.95
1909	4.86	6.15	3.67	5.27	4.92	2.47	2.00	3.52	3.94	1.14	2.48	3.44	43.86
1910	6.18	4.82	1.06	4.17	3.21	3.22	2.21	5.00	4.34	1.12	5.05	1.98	42.36
1911	2.29	1.80	4.36	2.35	3.13	2.33	5.12	6.11	3.48	5.72	3.93	2.52	43.14
1912	2.00	2.05	5.05	4.99	5.74	0.70	2.90	4.27	3.08	4.51	3.69	4.86	43.84
1913	4.02	2.28	6.05	4.02	4.13	1.81	1.45	4.59	3.74	8.88	3.23	2.54	46.74
1914	2.51	2.35	4.23	3.69	3.30	2.97	3.10	2.48	0.55	2.23	2.37	2.58	32.36
1915	5.77	5.54	0.12	2.56	2.90	4.65	7.97	7.41	3.74	1.96	2.07	8.89	53.58
1916	1.48	3.77	2.92	2.97	3.38	3.87	7.38	3.10	6.23	0.96	3.58	3.02	42.66
1917	3.19	2.58	2.90	2.08	2.99	4.75	1.86	3.01	0.40	6.43	0.95	2.28	33.42
1918	3.01	2.73	2.53	4.05	3.93	2.90	5.65	3.59	5.55	1.68	2.41	3.79	41.82
1919	2.94	2.47	5.65	2.32	4.52	2.93	5.73	2.96	4.72	2.22	6.31	2.23	45.00
1920	2.07	10.37	4.03	4.94	2.65	5.24	4.16	6.02	7.88	1.18	3.78	4.29	56.61
1921	2.48	3.16	4.43	4.62	3.45	3.95	3.11	4.25	3.86	1.64	5.92	1.67	42.54
1922	1.65	1.95	4.67	2.30	6.97	5.81	2.30	5.81	2.14	2.30	1.02	3.08	40.00
1923	5.05	1.47	1.82	3.18	2.50	2.73	3.19	3.14	4.60	5.52	2.74	2.85	38.79
1924	2.09	1.72	0.97	5.29	4.14	2.16	2.47	4.26	8.89	0.87	3.13	1.30	37.29
1925	2.34	3.43	4.84	2.23	2.73	3.17	7.30	1.68	4.02	3.04	3.02	2.01	39.81
1926	1.73	3.58	2.79	2.79	1.94	2.68	2.42	3.82	4.64	5.61	5.80	2.50	40.30
1927	2.37	2.93	1.73	2.20	5.63	2.42	5.43	5.59	2.03	6.75	4.89	4.71	46.68
1928	2.22	3.71	2.08	3.99	2.82	5.79	7.96	10.16	1.98	1.33	1.49	1.76	45.29
1929	3.50	2.96	3.68	7.29	3.35	3.35	1.48	2.90	2.62	3.03	3.19	3.79	41.14
1930	1.85	1.87	2.94	1.71	3.19	6.17	3.10	3.57	4.01	1.56	3.21	2.75	35.93
1931	2.02	1.63	2.85	2.11	5.80	7.02	5.05	4.09	1.14	2.74	1.36	2.74	38.55
1932	3.52	1.62	3.21	2.63	2.61	6.92	5.64	4.72	2.84	3.73	6.80	1.14	45.38
1933	1.74	2.57	2.60	4.84	1.96	1.64	2.80	7.55	8.18	2.67	1.03	2.32	39.90
1934	3.35	2.07	2.26	3.70	4.45	3.47	3.73	4.35	8.01	2.19	3.72	2.71	44.01
1935	3.51	2.27	2.14	1.50	1.94	4.86	3.73	1.23	2.89	0.90	3.84	0.93	29.74
1936	5.19	1.90	6.59	3.65	2.73	2.24	3.19	4.85	2.62	4.17	1.89	5.00	44.02
1937	4.83	2.14	2.82	2.61	4.07	8.68	3.49	3.38	5.51	4.97	3.10	2.06	47.66
1938	4.28	2.27	1.35	2.94	2.38	8.97	10.22	4.18	13.64	1.76	3.45	2.92	58.36
Av. 49 yrs.	3.14	3.10	3.35	3.22	3.75	3.93	4.49	4.30	4.50	3.26	3.19	3.29	43.52
1939	2.17	3.28	3.05	4.31	2.00	4.11	0.90	1.93	2.09	4.76	1.75	1.84	32.19
1940	1.65	2.03	4.49	5.51	4.95	3.78	2.67	3.62	5.25	2.15	3.96	2.35	42.41
1941	1.74	1.99	1.77	0.93	3.33	6.78	6.13	1.45	1.62	2.48	1.93	3.19	33.34

CANTON, CONN. (G. J. Case). Elevation, 900 feet.
Record January 1859 to March 1923 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.29	9.30	9.57	12.30	18.00	11.77	16.96	16.95	11.25	14.70	9.28	9.07	75.16
Year	1891	1896	1876	1901	1868	1869	1897	1867	1868	1869	1866	1901	1869
Min.	0.00	0.49	0.19	0.68	0.51	0.20	1.36	0.73	0.29	0.52	0.70	0.64	37.22
Year	1860	1859 & 1901	1915	1892	1887	1873	1913	1894	1914	1920	1890	1875	1921
Av. 64 yrs.	3.59	3.68	4.04	3.52	4.23	4.15	4.52	4.68	4.12	4.42	4.12	3.76	48.83

CANTON, CONN. (Nepaug Dam, Hartford Water Works). Elevation, 485 feet.
Record from April 1912 to December 1935 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.73	4.91	6.98	8.26	7.97	7.48	6.12	8.06	7.73	10.85	8.68	5.21	49.99
Year	1923	1926	1919	1924	1919	1917	1915	1915	1920	1913	1927	1923	1920
Min.	1.00	1.47	0.13	1.24	2.13	0.77	0.77	2.07	0.26	0.15	1.03	1.71	32.44
Year	1916	1917 & 1918	1915	1916	1926	1913	1924	1923	1917	1924	1917	1924	1916
1929	4.97	2.96	3.74	8.07	4.59	2.55	0.85	2.09	2.98	4.93	2.59	3.66	43.98
1930	2.14	1.98	3.84	2.22	4.49	3.87	2.88	3.09	2.10	2.02	4.53	1.45	34.61
1931	2.66	1.68	4.13	3.00	7.48	4.18	2.44	3.25	0.97	2.31	1.37	2.65	36.12
1932	4.67	2.30	4.90	2.19	2.90	2.99	4.13	6.13	3.12	6.53	7.91	1.78	49.55
1933	2.00	3.53	5.59	4.38	1.74	1.76	1.73	5.93	6.10	2.92	0.93	3.73	40.34
1934	3.87	2.31	2.60	6.10	6.07	4.04	3.25	4.41	12.19	2.38	3.48	4.26	54.96
1935	5.64	3.05	2.06	3.04	1.45	5.20	4.05	1.36	4.44	0.71	3.82	1.03	35.85
Av. 23 yrs.	3.29	2.83	3.35	3.75	3.90	3.72	3.48	4.02	4.01	3.43	3.61	3.01	42.40

CANTON CENTER, CONN. (Cherry Brook, Hartford Water Works). Elevation, 485 feet.
Record from 1925 to 1930; 1932 to 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1925	——	——	——	2.56	2.11	4.67	6.07	2.26	4.13	3.89	3.45	2.63	——
1926	1.83	3.20	3.31	2.46	1.83	2.13	2.44	2.99	3.23	3.30	5.66	2.74	35.12
1927	1.81	2.59	1.48	2.34	5.34	2.01	6.46	5.42	2.32	3.95	9.19	5.12	48.03
1928	2.26	4.25	2.55	2.94	2.11	4.63	5.06	7.95	3.27	0.71	1.98	1.49	39.20
1929	4.51	3.37	3.64	8.33	4.48	2.04	1.04	3.56	4.05	4.67	2.96	3.61	46.26
1930	1.87	1.76	3.46	2.10	4.59	4.59	1.52	2.59	1.66	2.33	4.06	1.76	32.29
1931	——	——	——	——	——	——	——	——	——	——	——	——	——
1932	3.82	2.06	5.76	1.83	2.63	3.09	3.54	5.40	3.27	6.33	7.31	1.09	46.13
1933	2.13	3.58	6.27	4.29	1.66	2.01	1.03	5.58	5.94	2.90	0.71	3.05	39.15
1934	3.66	2.72	2.37	6.29	5.60	3.53	2.85	3.93	14.82	2.34	3.46	3.68	55.25
Av. 8 yrs.	2.74	2.94	3.60	3.82	3.53	3.00	2.99	4.68	4.82	3.33	4.41	2.82	42.68

CANTON, CONN. (Collinsville). Elevation, 300 feet.
Record January 1929 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1929	4.62	2.49	4.23	7.77	4.86	2.21	1.17	1.64	2.43	4.20	3.07	4.14	42.83
1930	2.37	2.27	3.91	2.13	4.57	3.33	3.31	2.83	2.67	1.96	4.10	2.48	35.93
1931	3.38	2.29	4.70	3.22	6.42	4.51	2.11	3.26	0.97	2.20	0.95	3.38	37.39
1932	4.97	2.34	4.58	2.72	2.47	3.36	4.51	5.80	3.64	6.24	8.06	1.92	50.61
1933	1.98	3.85	6.13	5.09	1.61	2.11	2.64	6.70	5.81	2.77	0.93	3.56	43.18
1934	3.99	2.82	2.44	6.38	6.10	3.41	2.85	4.99	14.04	2.23	3.35	4.22	56.82
1935	5.02	3.67	2.11	3.09	1.77	4.86	4.62	1.07	4.62	0.41	3.62	1.13	35.99
1936	6.68	3.07	3.35	3.04	3.43	4.06	3.30	5.55	2.99	4.67	1.24	7.18	53.56
1937	6.40	3.56	3.54	4.32	4.83	6.46	6.05	7.32	4.41	5.53	6.28	2.52	61.22
1938	5.51	2.65	1.79	3.91	3.94	6.32	10 80	2.86	10.11	1.59	3.76	3.81	57.05
Av. 10 yrs.	4.49	2.90	4.18	4.17	4.00	4.06	4.14	4.20	5.17	3.18	3.54	3.43	47.46
1939	3.34	2.27	5.15	4.84	1.56	2.79	2.22	7.97	2.56	4.89	1.66	2.93	42.18
1940	3.99	3.86	5.68	6.24	4.58	6.10	3.01	2.69	3.41	2.71	5.46	3.03	50.76
1941	2.43	3.39	2.04	0.91	3.18	5.47	4.41	2.39	1.47	1.49	3.68	4.14	35.00

COLCHESTER, CONN. Elevation, 440 feet.
Record 1891 to 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.40	9.68	8.27	9.63	7.97	8.40	10.82	9.49	8.98	9.23	7.58	10.05	64.12
Year	1915	1900	1912	1901	1893	1903	1897	1927	1918	1913	1892	1901	1901
Min.	1.76	0.51	0.26	1.21	0.42	0.49	1.23	0.86	0.42	0.37	0.74	1.37	35.72
Year	1916	1895	1915	1892	1903	1894	1909	1900	1914	1924	1918	1892	1891
1929	6.22	4.00	4.45	8.63	4.08	1.95	1.93	3.54	1.22	2.80	2.92	4.08	45.82
1930	2.96	3.97	4.04	2.40	4.73	4.48	2.21	2.61	1.27	2.99	3.69	3.79	39.14
1931	3.89	2.16	4.92*	2.37*	4.41*	6.41	3.45	6.25	2.53	2.53	0.90	3.87	43.69
1932	5.58	2.07	5.74	2.76	3.29	4.28	2.44	5.15	4.61	8.24	5.96	2.35	52.47
1933	2.18	4.73	5.61	5.02	3.28	2.30	1.94	5.55	5.91	2.38	1.85	3.68	44.43
1934	3.98	4.78	4.18	6.94	5.81	4.54	2.89	4.45	10.01	3.72	3.78	5.78	60.86
1935	5.70	3.23	2.29	3.00	1.73	6.26	6.22	2.35	3.87	0.54	4.75	1.40	41.34
1936	8.15	1.90	7.59	4.92	2.69	4.55	1.39	3.87	5.28	5.63	1.48	6.94	54.39
1937	5.21	2.91	4.05	5.59	3.86	4.69	3.76	5.07	3.49	3.99*	8.84	1.98	53.44
1938	4.22	1.38*	1.19*	2.68*	4.45	6.14	11.78	4.58	11.92	1.84	4.09	3.75	58.02
Av. 47 yrs.	4.18	3.81	4.37	4.37	3.86	3.52	3.99	4.51	3.88	3.81	4.02	4.19	48.51
1939	2.92	4.88	5.21	4.87	1.39	2.89	0.75	7.50	3.10	4.74	1.22	4.91	44.38
1940	3.15	2.05	——	——	7.13	2.27	4.43	1.66	2.97	2.06	6.61	2.29	——

*Interpolated.

CORNWALL, CONN. (Cream Hill). Elevation, 1,300 feet.
Record June 1896 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.96	6.57	7.33	6.84	6.90	9.74	9.71	10.86	12.22	9.69	9.25	8.14	61.43
Year	1923	1909	1901	1924	1901	1903	1897	1928	1907	1907	1927	1901	1902
Min.	1.52	0.84	0.29	1.47	1.39	1.28	1.37	1.11	0.63	0.87	0.75	1.78	36.04
Year	1901	1901	1915	1899	1903	1912	1913	1899	1914	1909	1902	1896	1914
1929	4.75	2.65	3.71	7.65	3.87	3.17	1.23	2.11	2.28	3.46	3.46	4.35	42.69
1930	2.07	2.03	3.31	1.83	3.38	6.52	3.59	3.58	3.82	1.66	3.25	2.82	37.86
1931	2.83	3.01	3.89	2.46	6.03	6.46	4.49	4.85	1.10	2.86	1.32	3.26	42.56
1932	4.23	2.02	4.21	2.05	2.33	8.59	4.90	5.02	3.31	5.09	7.56	1.57	50.88
1933	2.06	3.21	3.87	5.30	2.15	1.22	2.79	8.92	7.30	2.70	1.56	3.16	44.24
1934	3.66	3.19	3.15	3.74	5.07	2.82	2.52	2.61	9.32	2.58	5.05	3.93	47.64
1935	4.95	3.15	2.39	2.18	2.48	4.50	5.32	1.82	2.75	0.53	4.51	1.07	35.65
1936	5.75	3.35	6.87	4.08	3.71	3.60	4.99	3.83	3.44	4.18	1.96	5.60	51.36
1937	4.83	2.92	3.88	4.17	5.41	7.63	5.30	4.73	5.35	6.77	4.46	2.43	57.88
1938	5.41	2.47	1.79	3.60	3.26	8.69	7.94	4.55	13.03	1.96	4.02	3.73	60.45
Av. 42 yrs.	3.71	3.32	3.69	3.55	3.97	4.28	4.63	4.44	4.51	3.56	3.58	3.58	46.82
1939	2.89	4.71	3.70	6.53	2.13	3.84	2.60	2.05	2.17	5.04	1.86	2.66	40.18
1940	2.31	2.77	5.93	4.11	6.42	3.77	3.16	3.54	3.97	2.87	4.34	2.35	45.54
1941	2.34	2.59	3.44	0.90	3.61	4.47	7.41	2.46	1.27	2.52	2.36	3.92	37.29

COTTON HILL (Nepaug Reservoir Water Supply, Hartford Water Works).
Record November 1929 to December 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1929	——	——	——	——	——	——	——	——	——	——	2.73	3.57	——
1930	2.28	2.08	3.63	2.05	3.80	4.94	3.69	3.63	2.00	1.99	4.51	1.42	36.02
1931	2.81	1.44	3.98	2.75	7.11	4.64	2.81	3.20	0.92	2.13	1.39	2.92	36.10
1932	4.81	1.85	4.53	2.12	2.86	3.87	3.89	6.71	3.08	6.88	8.00	1.65	50.25
1933	1.76	3.42	4.72	5.18	2.07	1.51	2.22	5.49	6.96	2.69	0.82	2.99	39.83
1934	3.89	2.12	2.15	5.33	5.55	3.75	4.58	3.94	14.09	2.48	4.49	3.71	56.08
Av. 5 yrs.	3.11	2.18	3.80	3.49	4.28	3.74	3.44	4.60	5.41	3.23	3.84	2.54	43.66

DANBURY, CONN. Elevation, 390 feet.
Record January 1926 to December 1935; November 1937 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1926	2.73	3.65	3.02	2.67	1.43	2.15	3.35	6.48	3.62	3.97	4.63	2.46	40.16
1927	2.46	2.53	1.72	2.23	5.54	4.43	7.24	9.11	2.94	7.21	7.37	4.63	57.41
1928	2.15	4.53	2.97	4.64	2.50	6.07	8.86	5.11	4.12	0.78	2.70	1.19	45.62
1929	3.36	2.58	3.58	5.97	4.12	1.92	1.93	4.16	2.47	4.39	2.27	3.28	40.03
1930	2.38	1.71	2.06	2.46	2.96	5.96	3.38	3.12	4.23	2.20	5.09	2.13	37.68
1931	1.92	1.81	3.71	4.00	6.15	5.84	2.77	3.05	2.61	2.10	1.37	2.65	37.98
1932	4.00	2.25	4.62	2.02	2.14	2.50	4.95	4.80	2.02	4.02	8.28	1.64	44.14
1933	1.70	2.26	5.37	4.44	2.67	1.89	3.19	9.01	5.02	2.52	0.91	2.33	41.31
1934	3.76	0.60	3.93	3.75	5.54	4.22	3.12	2.41	11.23	2.57	4.04	2.95	48.12
1935	1.98	2.70	1.86	1.94	1.77	4.74	5.57	0.85	3.64	0.84	3.00	0.95	29.84
1936	——	——	——	——	——	——	——	——	——	——	——	——	——
1937	——	——	——	——	——	——	——	——	——	——	5.03	2.25	——
1938	7.68	2.50	2.09	3.19	3.74	5.52	11.30	5.87	13.56	3.11	3.27	4.56	66.39
Av. 11 yrs.	3.10	2.47	3.18	3.39	3.50	4.11	5.06	4.91	5.04	3.15	3.90	2.62	44.43
1939	2.95	8.04	4.47	5.70	1.93	2.91	1.88	4.41	3.35	5.61	2.10	2.12	45.47
1940	2.98	2.91	5.06	5.97	7.37	3.24	3.80	1.80	1.74	1.87	4.89	2.59	44.22
1941	2.24	3.10	——	——	2.22	4.71	8.54	2.82	0.26	2.79	3.69	4.83	——

DANIELSON, CONN. Elevation, 300 feet.
Record January 1905 to September 1919 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.14	6.35	8.17	5.60	4.82	6.12	9.90	8.20	11.23	6.97	7.23	6.78	50.65
Year	1910	1909	1912	1913	1912	1916	1915	1911	1907	1907	1911	1912	1907
Min.	2.05	1.11	0.10	1.25	1.41	0.34	1.18	1.37	0.45	1.36	0.85	1.10	30.18
Year	1918	1905	1915	1917	1905	1912	1905	1910	1914	1909	1917	1917	1905
Av. 14 yrs.	3.90	3.45	3.44	3.05	2.96	3.04	3.56	3.97	3.85	2.99	3.15	3.82	41.18

EAST HAVEN, CONN. (Lake Saltonstall, New Haven Water Co.). Elevation, 25 feet.
Record November 1913 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1913	——	——	——	——	——	——	——	——	——	——	2.29	4.37	——
1914	5.58	3.43	4.53	4.10	2.77	2.07	4.61	2.41	0.18	3.30	2.46	3.67	39.11
1915	7.67	5.75	0.18	1.82	3.33	4.16	2.17	4.96	1.32	2.79	1.27	5.78	41.20
1916	1.54	5.54	4.16	2.62	2.48	4.16	4.43	0.68	2.11	2.67	2.27	3.28	35.94
1917	2.87	2.12	4.84	2.51	2.72	2.52	3.54	4.43	2.52	4.30	2.01	3.70	38.08
1918	2.96	3.94	2.36	4.72	4.16	6.95	3.44	2.21	6.35	0.98	3.05	3.69	44.81
1919	3.50	3.36	4.34	3.38	5.45	2.42	3.19	6.99	5.95	3.35	4.14	2.34	48.41
1920	2.22	2.21	4.35	5.01	3.64	5.66	4.29	2.64	3.47	2.97	4.82	5.05	46.33
1921	2.58	3.00	2.86	5.36	3.79	3.98	4.96	2.46	2.47	1.63	4.43	2.76	40.28
1922	1.67	1.99	4.58	2.97	4.18	8.95	5.90	4.17	1.94	3.25	1.91	2.75	44.26
1923	5.11	1.02	3.94	5.02	2.18	3.09	1.73	1.15	3.55	5.98	2.26	6.13	41.16
1924	3.71	2.22	0.80	5.10	4.99	1.88	0.87	4.49	2.71	0.65	1.89	2.45	31.76
1925	1.57	3.13	3.88	1.98	4.15	3.21	4.91	3.85	3.15	4.45	3.00	3.20	40.48
1926	2.08	3.30	2.50	3.68	1.35	2.59	3.36	4.46	3.67	3.82	3.92	4.08	38.81
1927	2.33	2.21	1.92	2.49	4.70	3.18	6.27	9.64	1.92	3.66	5.35	4.82	48.49
1928	1.89	4.41	2.17	4.75	1.61	5.93	6.88	2.88	3.04	2.32	1.76	3.22	40.86
1929	3.74	2.81	3.38	6.78	4.00	0.97	2.90	3.59	1.66	2.86	2.53	3.75	38.97
1930	2.53	3.10	2.51	1.94	4.18	2.67	1.96	1.65	0.39	2.33	5.78	2.23	31.27
1931	2.85	1.93	4.64	2.89	5.64	4.92	4.01	3.34	2.21	2.30	0.73	3.26	38.72
1932	4.61	2.56	4.67	2.15	2.33	2.75	2.41	2.84	3.61	5.32	6.46	1.78	41.49
1933	1.85	3.28	4.74	4.26	2.17	2.36	3.43	6.89	4.94	2.74	0.94	3.62	41.22
1934	3.73	3.29	2.57	6.48	4.65	3.10	2.00	5.80	7.76	2.80	2.80	4.45	49.43
1935	6.16	2.80	2.50	1.81	1.65	5.38	3.76	0.86	4.21	0.74	4.04	1.17	35.08
1936	5.66	3.07	5.92	3.30	1.49	7.32	0.76	1.96	4.77	4.21	1.09	7.38	46.93
1937	5.78	3.07	3.53	3.94	1.75	4.95	4.68	5.27	2.50	4.81	4.97	2.70	47.95
1938	3.20	2.58	2.27	2.27	3.71	5.71	7.35	2.28	14.79	2.95	2.90	2.99	53.00
Av. 25 yrs.	3.50	3.04	3.37	3.65	3.32	4.03	3.75	3.68	3.65	3.09	3.07	3.61	41.76
1939	3.45	4.96	5.67	4.33	1.21	1.79	1.01	4.58	2.91	4.86	2.81	3.66	41.24
1940	2.65	3.19	5.33	5.82	4.72	4.21	2.70	2.54	3.02	2 11	5.13	2.76	44.18
1941	2.97	1.83	2.08	1.33	2.90	4.54	3.09	2.41	1.96	2.97	3.55	3.40	33.03

EASTON, CONN. (Easton Lake Reservoir, Bridgeport Hydraulic Co.). Elevation, 313 feet.
Record 1922 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1922	——	——	——	——	——	——	——	——	——	3.65	1.60	2.08	——
1923	8.10	2.12	——	4.37	1.50	3.05	1.65	0.95	2.50	6.75	6.05	4.60	——
1924	4.45	3.70	1.75	8.85	5.74	0.95	1.35	4.95	5.15	0.15	2.25	3.03	42.32
1925	1.90	5.10	4.69	2.25	2.30	3.10	9.00	1.65	3.15	4.82	——	2.99	——
1926	2.76	4.61	3.85	2.77	1.90	1.94	2.95	4.61	——	3.70	4.83	3.45	——
1927	3.09	3.16	0.90	1.90	4.47	2.90	4.35	14.05	2.97	5.90	6.65	4.75	55.09
1928	1.72	4.86	2.10	4.70	1.85	6.75	5.45	4.50	4.62	0.95	3.30	1.05	41.85
1929	4.40	5.10	3.25	6.05	3.45	1.71	1.67	2.56	1.74	2.19	1.92	3.83	37.87
1930	2.55	2.68	3.27	2.20	3.22	——	1.64	4.29	1.12	1.64	5.34	2.02	——
1931	2.01	1.88	3.74	4.57	4.32	2.95	2.16	3.84	3.26	2.57	0.67	3.01	34.98
1932	4.34	2.51	4.82	2.15	2.06	2.36	3.09	3.18	2.63	5.78	4.95	2.02	39.89
1933	1.76	3.71	6.03	4.53	2.14	2.03	3.24	10.78	4.72	4.99	0.80	2.98	47.71
1934	3.51	4.89	4.73	4.59	5.56	5.43	3.82	3.24	15.28	2.66	4.83	3.28	61.82
1935	3.94	2.32	2.30	1.84	1.80	4.26	4.01	0.84	4.43	1.71	3.75	0.64	31.84
1936	6.99	2.70	7.14	4.91	4.64	5.83	2.46	3.54	3.85	4.27	1.02	8.18	55.53
1937	7.07	2.39	3.40	5.40	3.22	6.13	2.89	7.56	3.61	6.35	5.33	2.03	55.38
1938	4.53	2.19	2.20	2.61	4.21	6.02	6.63	3.38	15.62	2.33	3.14	3.53	56.39
Av. 12 yrs.	3.98	3.28	3.53	4.34	3.62	3.94	3.43	5.20	5.66	3.32	3.22	3.20	46.72
1939	3.82	5.70	4.60	4.55	0.85	5.31	1.22	7.24	1.87	6.00	1.71	3.41	46.28
1940	3.69	2.23	6.02	6.49	8.24	3.36	3.53	4.16	2.98	2.50	5.82	2.64	51.66
1941	2.68	3.25	1.85	1.87	3.76	4.42	5.77	5.61	0.03	2.82	4.94	4.17	41.17

ENFIELD, CONN. (Thompsonville). Elevation, 50 feet.
Record April 1915 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.77	4.24	6.59	5.56	5.75	8.09	11.19	7.87	8.03	6.29	6.92	4.88	48.53
Year	1923	1919	1922	1924	1919	1920	1922	1928	1920	1923	1926	1915	1922
Min.	1.32	1.46	0.81	1.26	1.74	1.44	1.93	1.13	1.03	0.15	1.13	0.55	32.99
Year	1922	1922	1924	1915	1926	1919	1917	1925	1917	1924	1928	1917	1917
1929	4.33	3.71	3.39	7.30	4.96	2.29	0.73	2.72	2.63	2.98	2.98	3.69	41.71
1930	1.94	1.84	3.58	1.23	5.12	3.43	3.41	3.00	2.09	1.81	3.25	1.74	32.44
1931	2.97	1.49	3.50	2.37	7.17	5.38	3.20	5.25	0.92	2.31	0.90	3.21	38.67
1932	4.08	1.70	4.41	1.44	1.86	3.81	3.09	5.42	4.10	4.66	5.51	1.50	41.58
1933	1.94	1.69	5.46	4.50	1.19	2.03	0.78	5.19	6.98	2.63	0.29	2.34	35.02
1934	2.91	1.03	2.00	4.47	5.01	3.95	2.28	3.43	10.30	1.47	2.67	2.52	42.04
1935	3.89	2.10	1.87	1.89	1.68	4.81	2.53	0.67	4.30	1.00	2.25	0.87*	27.86
1936	6.02	2.29	6.39	3.65	2.90	3.94	2.43	4.40	3.04	3.81	1.55	6.14	46.56
1937	4.85	2.21	3.40	3.73	3.76	6.00	2.50	4.60	2.78	4.16	5.96	2.16	46.11
1938	4.69	1.92	2.05	3.61	3.57	7.18	8.34	2.65	12.44	2.43	2.23	4.13	55.24
Av. 23 yrs.	3.27	2.39	3.16	3.31	3.42	4.24	3.74	3.67	4.23	2.72	3.31	2.88	40.34
1939	2.38	3.46	3.90	4.21	0.77	2.29	2.71	4.11	2.26	3.59	2.57	2.33	34.58
1940	3.53	1.91	5.37	4.94	3.99	5.94	3.83	2.01	1.87	1.28	6.02	2.74	43.43
1941	1.67	1.59	1.67	0.54	2.41	4.09	5.18	2.52	1.28	1.44	2.84	2.58	27.81

*Interpolated.

FAIRFIELD, CONN. (Hemlocks Reservoir, Bridgeport Hydraulic Co.). Elevation, 253 feet.
Record 1922 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1922	——	——	——	——	——	——	——	——	——	4.55	1.38	3.55	——
1923	7.19	1.57	3.85	4.15	2.45	2.75	1.60	1.15	2.65	5.52	5.65	6.48	45.01
1924	4.20	2.25	1.16	8.18	5.56	2.31	1.07	5.50	4.75	0.35	1.81	2.54	39.68
1925	3.58	4.98	4.26	2.15	3.62	2.91	10.29	4.26	3.65	4.26	3.27	2.45	49.68
1926	2.67	4.01	3.41	3.37	2.08	2.22	2.87	4.10	3.10	4.46	6.22	3.27	41.78
1927	2.05	3.49	1.63	2.28	4.36	2.46	5.05	11.49	2.66	5.79	6.28	3.82	51.36
1928	1.99	——	1.68	4.35	2.24	6.36	5.51	4.76	4.47	——	3.53	1.12	——
1929	3.82	4.52	2.92	6.34	3.62	1.57	2.24	2.43	2.60	3.85	1.95	3.87	39.73
1930	2.57	2.55	3.35	2.38	3.88	4.30	1.80	4.62	2.40	2.05	7.67	2.90	40.47
1931	2.20	2.30	4.90	5.00	4.00	5.03	3.40	4.00	2.50	2.65	0.85	3.30	40.13
1932	5.05	2.45	5.85	1.55	2.25	2.14	2.96	3.93	3.29	5.87	6.10	2.29	43.73
1933	1.86	4.07	6.41	5.54	2.39	2.18	3.20	10.95	4.79	4.43	0.84	3.40	50.06
1934	3.59	3.00	4.56	3.92	5.36	4.43	3.23	3.07	14.64	2.45	4.26	3.64	56.15
1935	4.19	2.95	2.81	1.85	1.77	4.37	2.75	1.73	4.21	1.68	3.94	0.90	33.15
1936	7.67	2.80	7.24	4.62	3.56	5.85	1.99	4.17	3.69	4.17	1.12	8.96	55.84
1937	7.44	2.75	3.66	5.46	3.18	5.65	3.55	8.19	3.52	5.93	5.34	2.31	56.98
1938	4.71	2.54	2.46	3.02	4.31	6.25	7.72	4.44	14.62	2.23	3.43	3.33	59.06
Av. 15 yrs.	4.19	3.08	3.90	3.99	3.49	3.63	3.58	4.93	4.87	3.71	3.92	3.56	46.85
1939	4.16	6.25	5.02	5.39	0.58	5.72	0.82	7.66	2.19	6.22	1.81	3.13	48.95
1940	3.47	2.43	6.23	6.76	7.29	3.98	2.09	4.34	2.85	2.65	5.31	2.25	49.65
1941	2.85	3.00	1.76	2.03	2.50	4.73	6.61	5.95	0.17	2.91	4.82	4.04	41.37

GREENWICH, CONN. (Putnam Lake, Greenwich Water Co.). Elevation, 300 feet.
Record 1885 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.40	6.65	8.82	7.55	8.01	8.25	13.08	10.98	7.61	9.63	8.17	6.47	58.85
Year	1915	1896	1912	1909	1898	1903	1889	1908	1907	1913	1889	1902	1889
Min.	1.20	0.68	0.19	0.69	0.01	0.88	0.73	0.97	0.30	0.28	0.68	1.38	30.41
Year	1896	1914	1915	1916	1887	1885	1924	1910	1914	1924	1890	1892	1914
1929	2.30	3.99	3.49	4.73	3.78	1.55	2.15	1.70	3.00	3.73	2.09	3.34	35.85
1930	2.29	2.11	2.30	2.67	2.97	3.02	1.62	4.29	1.83	1.35	5.99	1.97	32.41
1931	2.09	2.73	4.35	4.42	5.82	4.27	2.99	2.97	1.75	2.66	0.56	3.14	37.75
1932	5.04	3.50	5.69	2.63	2.60	2.85	2.14	2.77	2.31	5.04	8.40	2.17	45.14
1933	1.58	3.43	6.29	5.38	2.41	3.06	1.63	11.12	6.34	2.86	0.68	3.98	48.76
1934	4.19	3.12	2.27	5.55	5.93	3.86	3.61	1.79	12.53	2.69	2.71	3.16	51.41
1935	3.37	2.69	2.45	1.55	1.40	4.47	3.45	2.02	4.21	0.85	3.38	1.40	31.24
1936	6.04	2.15	7.59	3.57	3.15	5.06	2.13	5.15	3.14	3.81	1.20	7.48	50.47
1937	6.77	2.14	2.83	4.58	3.32	3.75	2.96	4.98	3.80	5.95	5.97	2.31	49.36
1938	4.12	2.21	1.82	2.83	3.50	6.65	11.28	3.72	10.10	1.63	2.69	2.76	53.31
Av. 54 yrs.	3.58	3.33	3.60	3.46	3.52	3.38	4.03	4.47	3.71	3.61	3.34	3.42	43.45
1939	3.16	——	2.89	2.75	0.72	3.62	4.96	5.45	2.45	3.85	2.60	——	——
1940	3.55	1.15	4.98	7.19	5.68	3.51	2.63	5.49	3.35	2.79	4.17	1.74	46.23
1941	2.89	2.79	1.42	2.11	2.97	3.96	5.19	4.83	1.00	2.30	3.45	4.30	37.21

OLD GREENWICH, CONN. Elevation, 13 feet.
Record January 1932 to May 1937 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1932	6.06	3.11	5.37	2.27	3.89	2.78	1.38	2.40	2.17	4.57	6.57	2.59	43.16
1933	1.86	3.46	5.45	5.06	4.24	3.17	1.19	9.81	5.77	3.09	1.08	3.39	47.57
1934	3.56	4.09	4.24	——	5.41	2.95	3.39	4.10	14.18	3.17	3.17	2.72	——
1935	3.81	3.42	2.60	2.05	1.82	4.34	4.15	1.44	4.55	1.41	3.42	1.06	34.07
1936	8.15	2.58	7.80	3.74	4.07	4.24	1.97	4.41	4.68	3.03	1.42	10.04	56.13
1937	8.19	2.71	3.84	6.97	3.99	——	——	——	——	——	——	——	——

GROTON, CONN. (Poquonock Bridge, Groton Water Works). Elevation, 16 feet.
Record 1931 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1931	4.16	2.06	6.14	2.76	4.32	4.66	4.15	5.08	0.67	2.37	1.22	4.41	42.00
1932	7.48	2.86	5.98	2.23	2.33	3.57	3.33	5.73	10.38	7.72	7.19	2.80	61.60
1933	2.76	4.28	5.33	5.71	3.60	4.42	2.46	5.31	7.01	3.44	2.43	3.24	49.99
1934	3.71	5.49	3.23	6.76	5.16	3.87	2.65	1.95	5.46	3.46	2.73	4.93	49.40
1935	6.15	3.58	2.89	2.84	1.83	5.50	8.24	0.50	4.88	0.98	5.49	1.18	44.06
1936	7.40	4.48	7.32	3.38	1.79	4.01	2.26	4.68	5.47	3.53	1.35	10.00	55.67
1937	6.04	2.75	4.59	4.79	3.42	4.22	2.20	4.05	3.87	3.80	6.20	3.20	49.13
1938	3.64	3.17	2.52	3.37	4.57	6.93	6.05	5.99	6.26	1.99	3.88	3.90	52.27
Av. 8 yrs.	5.17	3.58	4.75	3.98	3.38	4.65	3.92	4.16	5.50	3.41	3.81	4.21	50.52
1939	4.35	9.17	7.95	5.65	1.02	2.33	——	6.77	1.36	4.70	1.08	2.58	——
1940	2.61	3.44	5.15	6.26	4.46	2.62	3.71	1.32	2.55	1.78	6.20	2.92	43.02
1941	3.30	2.75	2.08	1.64	2.96	3.88	4.46	2.93	0.14	2.88	4.16	3.00	34.18

HAMDEN, CONN. (Lake Whitney, New Haven Water Co.). Elevation, 33 feet.
Record November 1913 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1913	——	——	——	——	——	——	——	——	——	——	2.47	4.00	——
1914	5.38	3.34	3.62	3.84	3.18	2.06	4.83	3.25	0.25	3.81	3.01	4.07	40.64
1915	7.85	5.86	0.22	1.83	2.64	3.67	7.05	6.96	1.72	3.73	1.82	5.63	48.98
1916	1.72	5.05	4.22	2.83	3.92	4.52	4.80	1.45	2.75	2.09	2.83	3.57	39.75
1917	3.45	2.07	6.87	2.84	3.33	3.49	4.78	4.46	2.33	4.77	2.07	2.37	42.83
1918	3.56	3.62	2.06	4.93	2.68	6.24	3.92	2.25	5.92	1.49	3.55	3.28	43.50
1919	3.20	4.03	4.95	3.40	6.82	1.77	4.02	6.13	6.87	3.58	4.56	2.93	52.26
1920	2.41	3.54	5.82	5.41	4.11	6.84	4.45	4.20	3.52	3.24	4.92	6.09	54.55
1921	2.82	3.20	2.82	5.03	4.14	2.56	6.11	3.17	2.70	1.72	4.37	2.73	41.37
1922	1.39	2.62	4.43	2.99	4.37	7.79	4.58	3.60	1.56	2.95	1.50	2.53	40.31
1923	6.66	1.62	4.14	4.35	2.22	3.02	2.02	1.44	2.07	6.11	2.68	8.76	45.09
1924	4.27	2.53	1.17	7.20	6.12	1.63	0.72	5.01	3.45	0.68	2.45	2.96	38.19
1925	3.06	3.55	4.51	1.63	4.21	3.63	5.51	3.02	3.25	4.71	3.17	2.97	43.22
1926	2.09	5.88	2.99	3.66	1.60	2.60	2.46	7.22	3.08	3.85	5.00	4.41	44.84
1927	3.04	2.81	1.74	2.73	4.65	3.04	4.38	11.67	1.87	4.63	7.11	5.55	53.22
1928	2.70	4.84	2.83	4.32	2.35	6.40	7.03	4.62	3.39	1.39	1.50	3.61	44.98
1929	3.38	3.92	3.62	6.73	3.68	2.04	1.69	5.32	1.27	3.95	2.54	4.11	42.25
1930	2.73	2.94	3.62	2.34	4.97	3.05	1.64	1.16	0.64	2.46	5.61	2.79	33.95
1931	3.02	1.82	4.79	3.66	5.47	4.71	4.43	3.35	3.69	2.09	0.70	3.51	41.24
1932	4.50	2.42	4.74	2.30	2.34	2.47	2.51	4.17	3.64	5.05	6.05	2.06	42.25
1933	1.75	3.63	5.43	5.05	1.99	2.60	4.19	6.75	5.14	2.83	0.96	4.42	44.74
1934	4.02	4.04	2.91	7.54	5.42	3.82	3.17	2.45	9.87	2.58	2.95	4.77	53.54
1935	6.05	3.55	2.80	2.21	1.15	7.11	4.27	0.89	3.60	0.72	5.32	1.09	38.76
1936	7.46	2.89	6.95	4.35	2.06	12.04	1.64	2.83	5.11	5.07	1.10	7.38	58.88
1937	6.02	3.22	3.97	5.10	2.95	4.16	4.08	6.32	2.85	6.52	6.19	2.82	54.20
1938	3.60	2.98	2.30	2.77	4.60	7.34	7.17	3.34	14.29	2.62	3.57	3.43	58.01
Av. 25 yrs.	3.85	3.44	3.74	3.96	3.64	4.34	4.06	4.20	3.79	3.31	3.42	3.91	45.66
1939	3.82	5.33	6.52	5.30	0.93	2.31	1.78	7.48	2.49	4.28	3.26	4.03	47.53
1940	3.10	3.09	5.98	7.51	5.63	7.39	4.23	2.77	3.05	2.39	5.68	2.40	53.22
1941	2.88	2.47	2.49	1.71	2.64	4.60	4.96	3.52	0.66	2.82	4.64	4.61	38.00

HARTFORD, CONN. (U. S. Weather Bureau). Elevation, 63 feet.
Record April 1898 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.77	9.70	7.75	10.68	7.20	10.55	6.97	7.79	11.56	9.25	7.82	10.32	60.96
Year	1923	1900	1899	1901	1901	1903	1915	1903	1907	1913	1898	1901	1920
Min.	1.16	0.88	0.29	1.53	0.88	0.66	0.54	1.03	0.20	0.18	0.89	0.92	33.54
Year	1916	1901	1915	1915	1903	1912	1924	1907	1914	1924	1922	1928	1924
1929	3.54	4.73	3.52	7.66	4.41	1.59	0.94	4.82	1.39	4.02	2.64	3.85	43.11
1930	2.51	2.05	3.64	1.68	4.57	4.54	2.55	1.92	1.31	2.43	3.51	2.35	33.06
1931	3.46	1.65	4.26	2.81	5.50	4.75	2.51	4.45	1.05	1.75	0.95	3.00	36.14
1932	4.59	2.17	4.89	1.63	2.13	3.42	3.64	5.59	3.96	4.56	5.96	1.88	44.42
1933	1.73	3.89	5.56	4.69	1.59	2.18	1.71	4.91	5.36	1.68	0.87	3.72	37.89
1934	3.74	3.98	3.84	5.31	5.53	3.46	2.97	2.54	9.06	2.42	2.79	3.36	49.00
1935	5.01	3.33	1.93	2.05	1.60	2.74	5.99	0.93	4.96	0.66	3.59	0.99	33.78
1936	6.95	3.21	6.10	3.21	2.39	3.05	2.33	4.22	3.87	3.69	1.21	6.88	47.11
1937	5.81	1.94	3.78	3.90	4.13	8.08	3.11	7.14	4.00	4.83	6.76	2.33	55.81
1938	5.62	2.20	1.93	3.14	4.66	6.18	11.24	3.21	14.59	1.56	3.44	3.86	61.63
Av. 40 yrs.	3.61	3.49	3.94	3.71	3.45	3.52	3.97	4.12	3.89	3.09	3.10	3.64	43.53
1939	3.62	4.72	4.59	4.37	0.96	3.21	2.80	3.68	2.73	4.64	1.43	3.79	40.54
1940	3.69	3.09	5.10	5.38	7.04	4.32	3.88	1.79	2.37	2.57	5.46	2.67	47.36
1941	1.95	2.19	2.10	1.04	3.14	4.00	6.53	3.27	0.70	1.95	3.05	3.08	33.00

HARTLAND, CONN. (East Hartland). Elevation, 1,200 feet.
Record from January 1916 to July 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1916*	1.93	5.55	4.76	3.11	3.38	4.70	5.84	2.16	5.55	1.38	3.63	3.79	45.78
Max.	6.40	5.55	6.92	8.28	8.14	9.12	7.09	11.16	8.08	9.07	10.26	6.40	60.70
Year	1921	1916	1919	1924	1919	1920	1927	1928	1920	1917	1927	1920	1920
Min.	1.57	1.70	0.96	1.88	2.54	1.43	1.48	1.41	0.54	0.09	1.03	1.19	39.95
Year	1922	1922	1924	1922	1926	1924	1924	1925	1917	1924	1917	1921	1924
1929	4.35	4.02	3.11	8.37	4.64	1.65	0.71	1.71	2.61	6.71	3.19	3.98	45.05
1930	1.86	1.65	3.19	2.70	4.59	5.13	3.12	4.36	1.55	2.31	4.68	2.79	37.93
1931	3.43	4.08	3.93	3.64	8.70	6.12	4.11	4.75	1.25	2.60	1.46	1.75	45.82
1932	4.89	2.42	5.65	2.50	2.08	3.42	6.77	4.77	4.49	8.23	8.34	1.76	55.32
1933	2.86	3.71	7.60	4.41	2.10	1.62	1.18	9.57	7.39	2.99	0.88	4.20	48.51
1934	3.78	3.41	3.81	4.60	6.08	6.40	1.85	3.19	13.18	2.54	3.96	3.05	55.85
1935	5.16	3.10	1.73	2.41	3.03	6.50	3.27	1.03	4.51	0.91	5.51	1.15	38.31
1936	6.61	2.93	7.91	3.97	2.69	4.37	1.64	4.46	3.65	5.10	1.59	5.98	50.90
1937	4.66	3.58	3.97	4.81	4.76	5.39	4.40	4.30	4.58	7.33	7.50	2.41	57.69
1938	7.08	2.14	1.72	3.12	4.52	7.47	9.56	3.89	13.03	3.49	4.68	3.68	64.38
Av. 23 yrs.	3.87	3.49	3.91	3.92	4.13	4.70	4.10	4.44	4.73	3.73	4.30	3.29	48.61
1939	2.74	6.60	4.53	4.19	0.95	3.18	2.44	7.84	2.24	6.58	1.87	2.65	45.81
1940	3.25	4.75	5.14	5.38	8.67	4.06	3.88	3.29	2.61	1.79	5.61	2.52	50.95
1941	3.08	1.42	2.17	1.26	3.16	7.44	6.45		Record	Discontinued			——

*Record for 1916 found since previous publication.

HARTLAND, CONN. East (East Brook Reservoir, Hartford Water Works).
Record July 1928 to December 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1928	——	——	——	——	——	——	6.45	11.27	2.93	0.81	1.66	1.52	——
1929	5.42	3.42	2.70	6.98	4.20	1.70	1.05	2.85	2.87	5.89	3.15	3.58	43.81
1930	2.11	2.27	3.89	2.82	3.90	4.75	2.33	4.27	1.51	1.78	3.99	1.81	35.43
1931	2.24	1.65	4.12	2.78	8.67	5.70	3.90	4.15	1.10	2.53	1.60	3.21	41.65
1932	4.74	1.82	4.46	1.70	2.28	3.68	5.04	5.91	4.38	7.26	8.40	1.31	50.98
1933	2.19	3.20	5.05	4.85	1.95	2.06	1.02	9.31	7.40	2.65	0.65	3.26	43.59
1934	3.95	2.27	2.40	5.91	5.42	5.84	2.86	4.92	12.53	2.66	3.75	4.20	56.71
Av. 6 yrs.	3.44	2.44	3.77	4.17	4.40	3.96	2.70	5.23	4.96	3.80	3.59	2.90	45.36

HARTLAND, CONN. Hollow (East Brook Reservoir Water Supply, Hartford Water Works).
Record July 1928 to October 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1928	——	——	——	——	——	——	6.93	10.66	3.20	0.44	1.93	1.47	——
1929	3.88	2.94	2.70	7.29	3.94	1.77	0.93	1.72	2.18	5.60	2.90	3.76	39.61
1930	1.86	1.35	3.52	2.58	3.62	4.36	3.30	4.10	1.93	2.02	3.98	1.54	34.16
1931	2.97	1.73	3.49	2.45	7.66	4.70	3.73	3.69	0.72	2.50	1.53	3.28	38.45
1932	4.84	1.56	5.36	1.71	2.13	3.42	5.32	4.67	3.58	6.73	7.48	0.96	47.76
1933	2.00	3.38	5.15	3.99	2.18	1.75	1.12	8.51	5.87	2.87	0.80	2.66	40.28
Av. 5 yrs.	3.11	2.19	4.04	3.60	3.91	3.20	2.88	4.54	2.86	3.94	3.34	2.44	40.05
1934	3.02	2.16	2.95	4.97	4.95	4.84	2.09	4.97	10.19	2.41	——	——	——

HARTLAND, CONN. West (East Branch Water Supply, Hartford Water Works).
Elevation, 1,100 feet.
Record July 1912 to May 1916; January 1924 to December 1937 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.26	7.79	5.57	7.93	6.39	5.68	7.58	9.39	6.53	8.05	10.25	8.19	55.04
Year	1915	1926	1913	1924	1913	1928	1928	1928	1924	1913	1927	1915	1927
Min.	1.40	1.70	0.00	1.90	1.80	1.60	0.68	0.55	0.20	0.00	1.79	1.29	26.57
Year	1916	1913	1915	1916	1915	1913	1913	1914	1914	1924	1914	1914 & 1928	1914
1929	3.98	3.76	3.09	8.45	4.36	1.66	0.93	1.51	2.81	4.89	2.69	4.15	42.28
1930	2.00	1.63	3.84	1.68	3.48	3.72	2.24	4.53	2.30	1.62	4.15	1.99	33.18
1931	3.27	2.24	3.55	2.24	6.96	4.79	5.66	4.24	0.45	2.27	1.50	3.26	40.43
1932	4.43	1.56	6.09	1.50	1.57	3.78	5.36	4.17	3.48	6.81	7.73	1.62	48.10
1933	2.18	3.29	3.77	4.64	2.10	2.42	1.46	8.15	6.76	3.26	1.04	2.66	41.73
1934	3.21	2.33	2.22	5.35	5.52	5.78	2.39	5.78	11.75	2.48	3.68	4.29	54.78
1935	4.50	2.48	1.04	1.89	2.17	7.62	3.49	0.84	4.49	0.77	4.38	1.05	34.72
1936	6.61	2.93	7.91	3.97	2.69	4.37	1.64	4.46	3.65	5.10	1.59	5.98	50.90
1937	4.66	3.58	3.97	4.81	4.76	5.39	4.40	4.30	4.58	7.33	7.50	2.41	57.69
Av. 17 yrs.	3.76	3.52	3.40	3.82	3.48	3.85	3.47	4.53	3.88	3.73	4.02	3.19	44.65

LAKE KONOMOC, CONN. (New London Water Works). Elevation, 178 feet.
Record 1885 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1885	5.12	3.98	1.31	2.45	3.68	2.16	2.17	8.65	1.33	4.97	4.63	4.08	44.53
1886	5.70	9.24	4.63	3.24	2.43	2.07	3.66	5.11	3.17	3.51	4.82	5.12	52.70
1887	5.54	5.92	4.35	2.99	1.72	5.53	7.23	5.66	2.23	——	2.57	4.96	——
1888	7.03	4.54	5.90	1.71	4.27	0.93	2.21	——	8.34	4.40	7.71	5.31	——
1889	6.15	1.99	2.93	5.47	3.46	5.47	10.31	5.20	5.36	5.38	6.13	3.02	60.87
1890	3.31	2.23	9.53	4.92	4.97	2.96	4.01	3.92	6.20	6.72	0.55	7.61	56.93
1891	8.81	7.30	6.11	3.86	1.36	2.71	2.69	4.11	2.83	6.50	3.22	3.58	53.08
1892	7.01	1.72	——	1.79	5.31	2.18	2.76	3.22	1.51	1.19	5.93	1.46	——
1893	2.72	7.94	5.14	4.14	7.17	2.63	0.91	3.37	2.72	3.45	3.47	4.66	48.32
1894	2.50	2.98	1.67	3.21	3.91	0.64	0.93	1.35	2.09	6.77	4.98	4.08	35.11
1895	5.38	0.46	——	4.84	3.01	2.10	6.78	3.02	2.19	4.53	8.31	2.21	——
1896	1.02	6.24	5.57	1.04	2.67	1.99	3.61	3.49	4.28	3.60	3.55	1.50	38.56
1897	3.55	2.85	3.30	3.74	4.97	2.36	6.77	5.45	2.66	1.01	7.10	5.01	48.77
1898	4.79	6.07	2.66	5.72	9.14	1.70	——	7.92	3.00	10.67	7.54	2.68	——
1899	5.14	4.94	9.25	2.25	2.72	——	——	2.85	6.92	1.51	1.49	——	——
1900	5.02	6.09	5.41	2.59	——	——	3.51	2.47	2.87	2.91	6.43	3.00	——
1901	2.45	0.80	8.61	10.50	——	——	2.12	3.85	8.17	2.41	2.66	10.46	——
1902	2.36	4.02	7.75	4.92	1.55	3.99	4.26	1.59	7.82	5.93	1.26	6.53	51.98
1903	4.18	5.80	8.42	3.83	0.65	5.65	3.33	5.37	1.50	3.34	2.38	3.23	47.68
1904	5.16	3.69	3.22	8.75	2.37	3.54	2.03	5.45	4.39	1.74	2.09	4.28	46.71
1905	2.65	1.76	3.08	3.35	1.60	5.32	——	——	——	2.43	——	——	——
1906	4.74	3.01	4.83	4.05	4.75	5.26	6.66	2.51	3.18	8.78	3.37	3.52	54.66
1907	5.43	2.56	2.10	2.72	——	——	——	——	3.62	5.24	——	5.01	——
1908	4.37	8.28	5.20	2.09	6.14	1.48	2.40	5.63	0.99	2.29	1.34	4.74	44.95
1909	3.27	6.75	4.05	5.64	2.77	2.21	1.36	3.12	5.34	1.60	2.38	4.88	43.37
1910	6.30	4.80	1.71	2.88	2.14	3.98	3.22	2.13	1.77	1.12	4.39	2.16	36.60
1911	3.98	3.85	4.23	3.52	0.35	1.78	2.01	4.14	3.58	4.30	8.40	3.90	44.04
1912	3.49	2.45	8.67	4.84	4.81	0.80	2.71	3.25	2.25	1.20	3.95	6.47	44.89
1913	4.52	3.65	5.03	8.05	2.30	0.90	2.09	2.50	5.40	11.17	1.95	4.54	52.10
1914	3.45	3.23	3.70	5.74	2.23	1.06	3.83	2.45	0.10	3.50	2.75	4.02	36.06
1915	10.75	6.36	0.28	1.50	3.10	0.74	3.09	8.66	1.14	4.00	1.45	5.01	46.08
1916	1.64	6.24	4.79	0.81	4.55	5.63	8.45	1.70	1.35	2.52	2.37	3.87	43.92
1917	3.85	3.62	8.74	2.44	3.93	4.64	2.36	5.53	4.11	4.78*	0.71	3.98	48.69
1918	3.72	4.85	2.34	4.89	4.28	4.49	2.68	2.04	9.18	1.50	4.11	4.46	48.54
1919	5.87	2.93	7.82	5.90	4.01	1.99	5.38	9.08	4.81	2.86	4.40	5.07	60.12
1920	2.86	4.25	4.67	5.84	2.72	5.54	4.21	4.13	2.59	1.75	5.79	5.61	49.96
1921	3.35	3.23	4.46	6.35	5.10	3.27	5.67	3.86	1.43	0.96	6.57	2.00	46.25
1922	1.77	3.65	2.22	3.07	5.66	8.39	3.16	6.88	1.55	2.24	1.33	2.41	42.33
1923	5.62	2.05	5.35	5.49	1.75	4.88	4.13	1.50	3.58	5.63	3.70	7.06	50.74
1924	4.32	3.40	1.13	6.62	6.14	1.95	0.69	5.44	3.71	0.75	2.67	3.42	40.24
1925	3.30	2.58	3.16	2.93	5.12	2.37	2.78	1.97	3.40	5.55	4.54	4.70	42.40
1926	2.88	5.57	3.12	2.47	2.48	2.20	2.89	5.55	2.95	3.05	5.50	4.27	42.93
1927	3.25	2.60	2.11	2.43	3.32	4.18	4.17	10.80	2.94	5.88	2.73	4.70	49.11
1928	2.95	4.39	2.46	4.93	1.85	6.24	2.74	3.88	3.51	4.83	1.49	5.21	44.48
1929	5.22	4.24	3.49	5.66	3.43	1.18	2.59	4.06	2.07	2.16	2.42	4.65	41.17
1930	2.57	3.78	1.89	1.27	4.63	2.87	1.14	2.41	0.62	3.08	3.62	3.70	31.58
1931	3.57	1.80	5.78	2.98	5.41	5.64	4.08	6.93	1.56	2.33	1.26	1.83	43.17
1932	5.19	1.95	4.84	1.73	1.66	3.43	2.97	6.10	7.85	8.10	7.29	1.97	53.08
1933	2.25	4.88	5.36	5.41	2.55	2.04	2.32	6.21	6.85	4.26	2.62	2.78	47.53
1934	4.10	4.03	4.10	7.00	6.80	3.96	1.73	2.70	8.81	3.95	5.01	5.98	58.17
1935	7.97	4.10	3.29	3.02	1.82	6.31	10.26	0.25	4.70	0.79	4.13	0.94	47.58
1936	8.54	3.53	8.89	4.01	1.97	2.90	1.12	4.33	4.02	5.79	1.35	10.92	57.37
1937	6.93	3.17	4.75	6.01	3.94	5.30	2.94	6.03	3.37	5.25	7.87	2.93	58.49
1938	5.34	3.22	3.27	3.90	4.55	8.17	10.02	6.88	14.52	3.94	3.94	4.41	72.16
Av. 44 yrs.	4.38	4.20	4.44	4.16	3.53	3.45	3.65	4.45	3.81	3.93	3.62	4.29	47.91
1939	4.66	5.17	6.72	9.06	1.50	2.32	1.81	8.26	2.57	6.14	1.85	3.90	53.96
1940	2.81	3.68	6.79	8.56	7.10	2.58	7.39	2.05	3.51	2.03	——	2.93	——
1941	3.46	2.85	2.51	1.75	3.42	5.10	4.97	3.18	1.00	3.53	5.08	4.78	41.63

*Interpolated.

MANSFIELD, CONN. (Storrs). Elevation, 640 feet.
Record January 1893 to September 1920; March 1922 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.52	7.31	7.29	9.51	7.12	9.24	12.24	7.58	9.71	6.74	7.53	9.55	60.18
Year	1915	1900	1912	1901	1893	1903	1897	1901	1907	1895	1927	1901	1901
Min.	1.05	0.37	0.15	0.80	0.33	0.29	0.84	0.93	0.45	0.15	0.47	1.88	33.12
Year	1911	1907	1915	1896	1911	1912	1909	1916	1914	1924	1917	1924	1914
1929	4.28	3.71	4.06	6.94	5.13	2.09	1.03	2.32	0.94	3.61	2.97	3.89	40.97
1930	2.63	2.36	3.75	2.32	2.92	2.58	3.49	1.90	0.58	2.79	2.97	3.45	31.74
1931	3.91	1.53	5.70	2.54	4.08	5.79	2.45	4.37	1.68	1.74	0.91	3.19	36.99
1932	4.35	2.00	4.27	2.21	1.88	1.86	5.04	8.61	4.69	6.20	5.11	1.90	48.12
1933	1.97	4.10	4.70	5.35	3.32	2.07	1.21	7.44	6.62	1.66	1.45	3.22	43.11
1934	3.89	3.43	3.22	4.19	5.36	3.38	2.47	2.87	9.75	2.59	2.48	2.78	46.41
1935	5.01	2.50	2.27	2.96	1.94	4.66	3.51	2.00	3.22	0.36	4.14	1.11	33.68
1936	7.88	3.08	10.65	3.59	4.33	4.60	2.60	6.23	4.50	5.06	1.28	8.85	62.65
1937	5.81	2.78	3.93	4.83	3.23	4.67	2.55	9.10	4.46	5.45	8.58	2.24	57.63
1938	5.43	2.63	2.47	2.62	5.21	6.48	12.13	4.09	17.00	1.44	3.14	3.67	66.31
Av. 43 yrs.	3.63	3.36	4.05	3.56	3.35	3.09	4.15	4.12	3.88	3.44	3.43	3.64	43.70
1939	3.38	5.04	4.64	5.15	1.05	3.34	2.22	8.78	3.71	6.83	1.12	3.97	49.23
1940	3.82	2.59	5.69	5.89	7.94	3.38	3.32	1.62	2.41	2.43	6.91	3.33	49.33
1941	2.17	3.02	2.36	1.25	5.08	4.46	5.72	3.00	1.18	2.39	3.25	3.65	37.53

MIDDLETOWN, CONN. Elevation, 125 feet.
Record September 1858 to December 1940 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.24	9.03	9.49	12.44	7.70	11.37	13.43	10.22	11.64	15.54	8.06	10.84	66.67
Year	1891	1900	1876	1901	1898	1903	1889	1867	1882	1869	1898	1901	1901
Min.	1.04	0.65	0.27	1.09	0.22	0.33	0.95	1.14	0.22	0.89	0.75	1.20	34.00
Year	1916	1901	1915	1892 & 1896	1887	1898	1924	1907	1914	1868 & 1910	1890	1875	1864
1929	3.74	3.92	4.09	8.36	4.75	1.74	1.69	4.15	0.72	4.98	2.81	4.24	45.19
1930	2.68	2.72	4.46	2.49	4.71	4.91	1.83	1.61	0.92	3.22	4.39	3.82	37.76
1931	3.30	1.13	4.52	3.18	6.81	5.08	3.04	4.15	2.03	2.09	0.94	2.61	38.88
1932	6.46	2.30	5.19	3.32	2.36	3.43	2.25	4.84	3.56	5.39	7.34	2.11	48.55
1933	1.89	4.45	6.51	5.43	3.15	3.01	1.78	6.83	7.74	1.89	0.95	3.21	46.84
1934	4.07	3.19	3.36	6.75	6.54	4.99	3.46	2.84	9.95	2.77	3.16	5.47	56.55
1935	4.86	2.95	2.45	2.75	1.63	6.30	5.51	1.29	3.64	0.73	5.89	1.51	39.51
1936	7.96	3.40	7.15	4.39	4.80	6.91	1.90	2.98	5.66	4.37	1.28	8.75	59.55
1937	6.90	3.10	4.34	5.79	4.57	4.77	3.14	5.27	3.83	5.64	7.89	2.60	57.84
1938	5.93	2.72	2.42	3.07	5.23	6.92	7.53	3.77	15.84	2.61	3.70	4.81	64.55
Av. 80 yrs.	4.00	3.76	4.35	3.66	3.83	3.56	4.01	4.47	3.78	3.89	3.87	3.91	47.09
1939	4.50	5.37	6.07	4.87	1.07	4.16	1.82	10.15	3.65	5.53	3.92	5.37	56.48
1940	4.37	4.28	5.86	6.62	6.55	6.44	5.11	1.78	3.49	2.40	7.16	2.75	56.81

MILFORD, CONN. (New Haven Water Co.). Elevation, 35 feet.
Record January 1926 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1926	1.49	2.96	2.41	3.86	1.38	2.33	4.33	4.62	2.35	4.11	5.83	3.81	39.48
1927	2.58	2.92	1.67	2.58	4.08	2.73	7.32	10.07	2.34	5.47	5.60	5.17	52.53
1928	1.20	4.59	2.32	5.04	2.43	4.79	5.12	4.01	4.12	1.37	2.19	3.03	40.21
1929	3.44	4.54	3.74	6.83	3.58	0.95	1.99	2.61	1.79	3.55	2.38	3.10	38.50
1930	2.92	3.08	3.33	2.26	4.73	3.66	1.60	2.33	0.84	2.22	7.31	2.87	37.15
1931	2.90	2.44	5.11	4.34	4.74	6.12	4.18	4.73	3.64	2.56	0.76	3.20	44.72
1932	5.52	2.92	5.90	2.29	2.14	2.32	2.28	2.69	3.95	5.35	5.77	2.44	43.57
1933	1.93	3.71	5.85	5.09	1.34	3.70	3.81	8.94	5.43	2.41	0.84	4.62	47.67
1934	3.93	3.47	2.88	6.92	4.94	3.56	2.23	2.25	10.02	2.71	2.98	3.94	49.83
1935	5.40	3.44	3.23	2.29	1.72	5.66	6.18	1.39	6.07	0.74	4.77	1.04	41.93
1936	7.44	2.74	6.02	3.23	1.64	9.40	1.53	3.66	3.82	5.39	1.15	7.88	53.90
1937	5.22	2.88	4.00	4.69	1.91	4.56	4.05	7.10	2.78	4.30	5.14	2.71	49.34
1938	3.69	2.51	2.53	2.73	4.57	6.14	7.91	3.32	12.35	2.49	3.11	3.18	54.53
Av. 13 yrs.	3.67	3.25	3.77	4.01	3.01	4.30	4.04	4.44	4.58	3.28	3.68	3.61	45.64
1939	3.68	4.62	6.43	4.96	0.68	2.24	1.77	5.78	2.22	4.90	2.77	3.01	43.06
1940	2.94	3.19	6.15	6.64	3.97	5.75	2.59	3.09	3.33	2.33	4.52	2.18	46.68
1941	2.46	2.31	2.40	1.91	2.07	6.47	4.53	4.12	0.73	3.11	3.64	4 07	37.82

NEW BRITAIN, CONN. (Shuttle Meadow Reservoir, New Britain Water Works). Elevation, 374 feet.
Record January 1929 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1929	4.33	5.85	3.68	7.65	5.23	1.25	1.16	3.38	1.65	4.25	2.97	4.24	45.64
1930	3.02	2.06	5.29	2.00	4.20	4.24	1.77	2.71	1.27	2.51	4.75	3.00	36.82
1931	3.40	2.31	4.57	3.55	5.21	6.92	3.31	3.90	1.62	1.91	0.93	3.54	41.57
1932	5.32	2.88	5.16	3.24	2.23	2.44	2.20	6.39	3.62	6.43	8.24	2.13	49.78
1933	1.87	3.66	4.85	5.49	1.51	1.98	1.86	5.74	5.51	2.44	0.82	3.64	39.37
1934	4.06	3.49	2.43	6.80	6.48	3.67	4.13	2.99	10.60	2.61	2.78	4.13	54.17
1935	4.68	3.28	2.15	3.15	1.70	4.58	4.70	1.34	4.59	0.60	3.82	0.97	35.56
1936	7.06	3.09	6.84	3.36	2.91	4.64	1.98	3.98	3.94	4.23	1.17	6.63	49.83
1937	5.68	3.04	4.01	4.89	4.61	4.90	2.66	7.02	3.70	5.48	6.71	2.07	54.77
1938	5.41	2.47	1.74	3.92	4.86	6.53	7.34	2.71	13.53	2.04	2.49	4.41	57.45
Av. 10 yrs.	4.48	3.16	4.11	4.41	3.89	4.12	3.11	4.02	5.00	3.25	3.47	3.48	46.50
1939	3.60	4.04	5.73	4.62	1.14	2.47	3.52	5.67	3.73	3.82	3.28	3.38	45.00
1940	3.35	3.15	5.62	6.69	4.63	7.97	2.93	1.83	2.21	2.73	6.21	2.70	50.02
1941	2.98	3.75	2.95	1.24	1.79	4.27	4.98	3.86	1.34	2.80	4.01	4.52	38.49

NEW CANAAN, CONN. (Mead Pond). Elevation, 485 feet.
Record October 1928 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1928	———	———	———	———	———	———	———	———	———	1.06	2.97	0.91	———
1929	3.99	3.70	3.02	7.54	4.75	1.52	2.41	3.90	2.97	4.33	1.94	3.51	43.58
1930	2.58	2.31	2.81	3.16	3.18	4.70	3.28	4.12	2.55	1.90	6.33	2.36	39.28
1931	2.09	2.68	4.44	4.96	7.70	4.48	2.72	3.48	1.68	2.28	0.98	2.98	40.47
1932	4.76	3.05	5.40	2.66	2.07	2.75	2.05	3.43	2.59	5.90	7.44	2.70	44.80
1933	1.93	3.95	6.85	4.93	2.55	3.71	2.03	11.55	4.95	3.32	0.95	3.61	50.33
1934	3.98	3.39	4.94	3.79	5.70	5.29	4.07	3.45	13.99	3.22	4.42	3.85	60.09
1935	3.69	2.88	2.65	1.66	2.37	4.60	3.92	1.53	5.00	1.24	3.57	0.91	34.02
1936	7.32	2.93	7.86	4.75	4.27	5.46	3.51	3.26	4.80	2.21	1.17	8.50	56.04
1937	6.33	2.65	3.06	6.18	3.87	5.41	3.27	6.77	4.82	6.51	5.98	2.62	57.47
1938	4.86	2.33	2.47	2.64	4.23	6.66	10.05	3.11	12.81	2.10	3.35	3.81	58.42
Av. 10 yrs.	4.15	2.99	4.35	4.23	4.07	4.46	3.78	4.46	5.62	3.30	3.61	3.48	48.45
1939	4.92	6.10	4.24	4.49	0.91	4.90	2.98	8.25	3.59	5.07	2.14	2.93	50.52
1940	4.21	3.09	5.99	7.37	9.11	4.09	3.11	4.92	2.41	2.70	5.33	2.80	55.13
1941	3.05	3.52	2.45	2.35	4.54	6.08	8.04	7.02	0.49	3.07	3.45	4.19	48.25

NEW HARTFORD, CONN. (Richards Corner Dam, Hartford Water Works). Elevation, 399 feet.
Record April 1912 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.81	4.72	6.10	7.88	7.18	7.48	6.97	9.18	7.60	9.18	9.59	6.12	52.44
Year	1915	1916	1919	1924	1919	1920	1928	1928	1918	1913	1927	1915	1920
Min.	1.26	1.42	0.21	2.13	1.63	0.73	0.96	1.99	0.47	0.15	1.17	1.56	35.05
Year	1916	1923	1915	1919	1926	1912	1924	1916	1914	1924	1922	1928	1916
1929	4.32	3.14	2.93	8.16	4.20	1.78	0.96	4.23	4.30	5.14	3.37	3.67	46.20
1930	1.84	1.96	3.66	2.72	3.97	4.65	2.70	2.13	1.10	1.80	3.94	1.71	32.18
1931	2.79	1.73	3.93	2.74	9.15	4.58	2.35	3.68	1.22	2.40	1.47	3.02	39.06
1932	4.31	1.74	4.63	1.66	1.94	3.09	3.03	5.95	3.01	6.64	7.92	1.53	45.45
1933	1.64	3.18	4.85	4.61	1.91	2.20	1.81	6.50	6.25	2.49	0.79	3.44	39.67
1934	3.58	1.98	2.26	5.78	4.84	3.94	3.17	3.23	12.21	2.41	3.41	3.96	50.77
1935	4.09	2.73	1.75	2.33	1.52	6.19	2.74	0.85	4.19	0.76	4.03	0.97	32.15
1936	6.00	3.47	7.82	3.41	2.43	3.39	2.34	4.19	3.52	4.79	1.47	6.40	49.23
1937	5.72	4.00	3.13	4.53	3.98	5.60	3.78	5.17	3.71	5.29	5.88	2.35	53.14
1938	4.89	2.13	1.53	3.11	3.72	6.57	10.69	3.29	10.93	2.60	3.47	3.80	56.73
Av. 26 yrs.	3.39	2.77	3.38	3.85	3.76	3.88	3.81	4.37	4.32	3.47	3.74	3.13	43.87
1939	2.79	3.12	4.14	4.50	1.45	2.36	3.32	5.93	1.58	2.97	3.03	2.50	37.69
1940	3.05	2.88	4.74	5.20	4.86	7.03	2.80	2.65	2.36	3.16	5.06	2.49	46.28
1941	1.83	2.62	1.91	0.92	2.68	6.39	6.73	3.69	3.17	1.96	3.56	4.00	39.46

NEW HARTFORD, CONN. (Bakersville, Nepaug Basin). Elevation, 710 feet.
Record May 1912 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.77	4.93	7.16	7.27	7.13	6.18	7.54	8.93	7.80	10.80	8.58	6.28	53.53
Year	1923	1920	1919	1924	1919	1917	1927	1928	1918	1913	1927	1915	1920
Min.	1.21	1.79	0.06	1.80	1.98	0.79	1.41	2.08	0.26	0.14	0.97	2.05	37.97
Year	1916	1923	1915	1925	1926	1912	1924	1916	1914	1924	1917	1928	1913
1929	4.35	3.45	3.35	7.79	4.70	2.57	1.13	2.21	4.52	4.82	3.24	3.93	46.06
1930	2.17	1.88	3.60	2.14	3.57	4.41	3.38	3.37	2.31	1.54	4.18	1.57	34.12
1931	2.56	1.53	3.65	2.61	7.01	4.78	2.61	3.34	1.58	2.31	1.36	2.74	36.08
1932	4.41	2.20	4.75	2.11	2.36	3.63	2.99	6.29	3.24	6.53	7.99	1.58	48.08
1933	1.76	3.03	4.28	4.58	1.91	1.08	1.97	6.03	5.85	2.52	0.80	3.34	37.15
1934	3.72	2.16	2.39	5.80	5.49	3.53	3.24	3.73	14.05	2.78	4.38	3.43	54.70
1935	5.62	2.96	2.03	2.56	1.75	6.68	3.04	1.91	4.85	0.89	4.17	1.18	37.64
1936	6.40	3.30	8.84	3.99	3.30	6.36	3.29	5.21	3.63	4.93	1.51	6.04	56.80
1937	5.96	3.56	3.41	4.10	4.31	7.54	5.04	6.97	3.87	4.79	6.01	2.38	57.94
1938	5.60	2.42	1.74	3.56	3.21	6.83	11.56	3.50	12.05	2.49	3.99	3.92	60.87
Av. 26 yrs.	3.78	2.93	3.55	3.81	3.87	4.09	4.09	4.44	4.66	3.62	3.72	3.25	45.81
1939	2.97	3.42	4.75	4.87	1.58	2.95	2.05	7.27	2.43	3.09	2.88	2.83	41.09
1940	3.22	3.43	5.29	5.28	4.97	5.48	2.49	3.30	2.82	2.78	4.64	2.65	46.35
1941	2.35	2.73	2.08	0.96	3.07	5.92	7.01	3.19	1.43	2.14	3.26	3.70	37.84

NEW HARTFORD, CONN. (West Hill). Elevation, 945 feet.
Record June 1924 to December 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1924	———	———	———	———	———	2.00	1.15	3.90	6.41	0.13	2.61	2.10	———
1925	3.87	3.76	4.29	3.41	3.51	4.34	5.66	1.55	4.65	3.71	3.91	2.55	45.21
1926	2.60	5.82	2.01	4.01	1.88	2.78	3.18	3.99	3.43	5.73	5.45	3.79	44.67
1927	2.36	3.37	2.51	1.77	4.54	2.84	7.75	7.61	2.05	5.59	9.11	5.57	55.07
1928	2.81	4.15	3.00	5.00	2.25	5.36	6.21	9.75	3.41	0.86	1.94	1.93	46.67
1929	4.25	2.98	3.52	4.93	4.53	3.12	0.87	3.52	4.07	4.73	2.95	3.45	42.92
1930	1.05	1.35	3.65	1.45	3.87	4.00	4.00	3.45	2.20	1.60	4.98	1.40	33.00
1931	2.35	2.10	4.00	2.50	7.43	5.30	2.73	3.72	0.70	1.70	0.80	3.15	36.48
1932	4.32	2.40	3.80	2.65	1.65	3.15	1.70	5.45	3.45	5.80	6.65	1.93	42.95
1933	2.18	3.58	4.54	5.75	1.49	2.41	1.85	7.02	5.51	2.96	1.20	3.70	42.19
1934	3.00	3.14	2.10	4.25	4.65	2.27	2.92	3.64	12.65	1.30	3.70	2.70	46.32
Av. 10 yrs.	2.88	3.26	3.34	3.57	3.58	3.56	3.69	4.97	4.21	3.40	4.07	3.02	43.55

NEW HAVEN, CONN. Elevation, 23 feet.
Record 1804 to 1829; 1864 to 1868; 1873 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.59	7.80	10.42	9.03	9.35	8.90	17.08	12.99	13.43	10.64	8.34	7.65	60.26
Year	1915	1807	1881	1901	1808	1817	1889	1874	1882	1913	1810	1901	1888
Min.	1.16	0.54	0.25	0.86	0.18	0.21	0.86	0.26	0.14	0.23	0.55	0.85	33.89
Year	1819	1901	1915	1820	1887	1898	1805	1882	1809	1924	1819	1816	1819
1929	3.49	4.42	4.19	7.25	3.94	1.57	2.44	4.17	1.31	3.75	2.22	4.35	43.10
1930	2.86	3.27	3.50	2.09	5.45	2.43	1.65	1.35	0.47	2.50	6.73	2.42	34.72
1931	3.17	2.04	5.27	3.98	5.90	5.33	3.99	3.31	4.60	2.23	0.85	3.54	44.21
1932	5.63	2.51	6.28	1.93	2.64	2.16	2.79	3.88	3.55	5.51	6.45	2.25	45.58
1933	1.73	4.15	6.60	4.64	2.00	2.26	3.58	7.39	5.05	2.64	0.90	4.51	45.45
1934	3.52	3.82	4.68	4.98	5.23	3.42	3.04	2.45	8.76	2.51	3.28	3.34	49.03
1935	5.84	3.82	2.93	2.42	1.70	5.58	4.03	0.72	3.53	0.76	4.70	0.96	36.99
1936	7.56	3.05	6.43	3.46	1.58	13.96	1.45	2.21	5.40	5.10	1.09	8.34	59.63
1937	6.68	2.22	4.33	4.75	1.98	4.54	4.21	7.00	2.90	5.80	5.80	2.95	53.16
1938	4.23	2.91	2.57	2.98	4.28	6.66	7.05	2.64	14.52	2.16	4.24	3.53	57.77
Av. 88 yrs.	3.86	3.89	4.04	3.60	3.81	3.41	4.25	4.34	3.71	3.65	3.58	3.72	45.86
1939	4.02	6.46	5.66	5.14	1.04	2.86	0.52	7.46	2.33	5.46	1.70	3.71	46.36
1940	3.07	3.45	5.36	6.71	6.97	3.36	3.95	2.54	3.33	2.05	5.45	2.46	48.70
1941	3.21	2.66	2.70	1.75	2.26	4.98	4.39	3.63	0.32	2.77	3.95	4.12	36.74

NEW LONDON, CONN. Elevation, 47 feet.
Record January 1871 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.16	11.98	10.96	10.85	8.12	7.71	7.13	16.44	10.44	8.47	7.85	7.36	60.62
Year	1915	1886	1877	1874	1898	1919	1916	1874	1882	1898	1897	1884	1919
Min.	0.50	0.43	0.35	1.45	0.54	0.42	0.44	0.48	0.33	0.20	0.32	0.73	30.05
Year	1896	1895	1915	1899	1903	1912	1894	1876	1914	1924	1908	1877	1896
1929	4.89	5.35	3.67	5.93	4.31	0.71	1.34	3.49	3.49	2.16	2.68	3.63	41.65
1930	2.89	3.73	2.32	1.74	3.63	2.94	2.59	1.39	0.59	2.81	4.30	3.78	32.71
1931	3.81	2.02	6.02	3.17	4.89	5.06	4.31	6.34	0.72	2.57	1.50	4.05	44.46
1932	6.31	2.81	6.38	2.29	2.11	3.67	2.78	5.77	7.42	7.63	6.74	3.20	57.11
1933	3.16	4.95	5.65	5.22	3.02	3.23	2.61	7.09	7.31	3.31	2.16	4.35	52.06
1934	4.65	4.66	5.58	5.69	6.02	4.09	2.61	2.37	8.06	3.86	3.80	4.53	55.92
1935	6.97	4.12	3.04	3.12	1.79	4.65	8.17	0.59	5.12	0.84	3.78	0.85	43.04
1936	8.15	2.77	8.67	4.03	1.92	3.67	2.05	4.30	3.97	4.18	1.35	10.67	55.73
1937	6.03	3.16	4.88	5.46	3.80	4.81	4.32	4.70	3.25	4.39	7.39	3.12	55.31
1938	4.57	3.03	3.07	3.48	4.27	6.77	7.77	7.38	6.26*	2.46	3.66	4.01	56.73
Av. 68 yrs.	4.09	3.70	4.18	3.69	3.41	3.26	3.68	4.31	3.53	3.66	3.70	3.74	44.95
1939	4.70	5.12	5.57	5.89	1.05	2.04	2.34	7.03	1.06	4.92	1.42	3.89	45.03

*Interpolated.

NEW LONDON, CONN. (Fort Trumbull). Elevation, 23 feet.
Record 1843 to 1846; 1862 to 1875 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1843	2.05	3.42	5.92	4.20	3.35	2.47	2.51	10.14	1.68	7.45	5.79	3.80	52.78
1844	5.92	1.81	6.01	1.19	3.47	1.94	3.81	2.72	2.40	5.39	3.40	2.23	40.29
1845	3.54	3.57	3.40	3.00	2.89	3.05	3.69	1.60	1.74	3.65	7.96	4.72	42.81
1846	3.04	2.24	3.35	2.12	4.69	——	——	——	——	——	——	——	——
1862	——	——	——	0.95	1.45	2.96	3.31	0.21	1.82	2.65	3.45	1.00	——
1863	2.10	2.50	1.90	3.00	0.90	1.70	3.35	1.00	1.10	2.20	2.10	3.50	25.35
1864	1.80	0.90	1.90	0.80	0.47	0.72	0.74	4.13	1.43	——	3.50	1.94	——
1865	4.76	2.82	3.63	2.69	6 05	1.55	3.66	0.55	0.10	——	——	——	——
1866	——	4.08	3.98	——	6.22	——	——	——	3.78	2.86	4.18	4.38	——
1867	1.42	5.81	4.12	2.18	4.29	5.66	5.11	7.29	1.84	5.05	2.04	4.36	49.17
1868	6.29	2.41	3.16	8.45	7.89	3.93	2.68	4.48	5.28	1.98	4.72	3.27	54.54
1869	4.54	7.51	5.71	2.11	5.44	4.77	2.29	1.80	4.62	7.40	2.54	5.24	53.97
1870	6.97	3.52	4.84	5.84	2.59	2.32	2.09	1.84	1.38	4.67	2.66	2.53	41.25
1871	2.28	3.41	6.09	3.49	2.82	4.58	1.76	3.80	1.36	7.62	4.90	2.76	44.87
1872	2.42	2.74	5.22	1.78	3.29	3.46	5.02	6.56	6.26	3.32	5.56	3.50	49.13
1873	6.46	4.18	1.50	3.28	5.92	——	1.10	4.90	2.82	5.02	4.76	5.58	——
1874	3.96	2.70	2.14	8.20	4.64	2.98	4.56	10.94	1.60	1.06	2.52	3.14	48.44
1875	3.36	3.24	5.78	4.53	——	2.28	——	——	——	——	——	——	——

NEWTOWN, CONN. (Hawleyville). Elevation, 600 feet.
Record January 1899 to December 1915 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.48	9.03	8.35	10.25	7.23	10.38	6.87	8.70	9.68	8.72	6.82	12.60	66.37
Year	1905	1900	1901	1901	1901	1903	1915	1915	1907	1913	1900	1901	1901
Min.	1.89	0.60	0.24	1.72	1.24	0.86	2.13	1.19	0.32	0.78	0.84	2.56	39.94
Year	1901	1901	1915	1899	1905	1912	1907	1899	1914	1910	1902	1910	1914
Av. 17 yrs.	3.93	3.90	4.51	4.21	3.90	3.46	3.98	4.55	4.13	4.06	3.02	4.25	47.90

NORFOLK, LITCHFIELD CO., CONN. Elevation, 1,400 feet.
Record July 1915 to December 1935.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1915	———	———	———	———	———	———	7.03	7.16	2.15	2.15	2.94	6.79	———
1916	1.06	3.95	5.65	3.60	3.42	4.55	5.26	3.50	4.67	1.36	4.86	3.15	45.03
1917	2.54	4.65	5.58	3.50	2.83	4.67	3.30	2.98	0.61	7.04	0.71	3.46	41.87
1918	3.34	2.34	3.06	4.26	3.85	3.20	2.82	2.13	6.66	2.05	3.15	3.13	39.99
1919	3.30	3.99	3.61	2.99	6.39	2.56	4.31	3.31	2.79	2.02	7.04	2.63	44.94
1920	2.70	4.60	4.39	5.72	3.05	6.84	4.37	6.09	4.49	3.45	4.87	6.21	56.78
1921	1.88	2.65	3.26	7.32	2.33	5.29	2.97	2.33	3.75	1.96	5.35	2.78	41.87
1922	1.79	2.85	5.61	2.40	5.98	5.39	3.47	7.72	0.48	3.10	1.51	1.71	42.01
1923	8.65	2.70	3.04	3.80	3.09	3.71	3.86	2.84	3.79	6.88	1.90	5.47	49.73
1924	4.55	1.35	1.29	7.24	5.36	1.73	2.80	4.15	9.09	0.50*	2.88	2.72	43.66
1925	3.90	3.33	6.67	2.93	2.89	5.28	7.91	2.42	3.42	5.11	2.18	3.23	49.27
1926	1.89	4.54	4.31	2.79	1.63	3.70	3.15	3.84	3.72	6.98	7.36	2.85	46.76
1927	3.45	4.00	1.74	2.79	5.51	2.82	3.46	9.13	1.80	7.83	12.17	5.75	60.45
1928	3.89	4.50	3.20	5.62	2.95	5.82	6.16	9.47	3.97	1.02	1.89	1.88	50.37
1929	5.03	2.95	3.97	7.67	4.39	2.96	2.23	1.99	2.10	4.84	3.88	4.54	46.55
1930	2.75	2.36	3.65	2.65	4.46	4.92	3.74	4.93	3.60	0.69	4.43	2.16	40.34
1931	2.60	2.20	3.60	3.76	7.80	6.67	5.35	3.56	1.76	3.72	1.28	3.74	46.04
1932	5.70	2.41	5.08	3.20	2.29	8.20	5.43	4.56	4.21	6.43	8.73	1.73	57.97
1933	2.60	4.64	4.82	6.08	1.69	1.43	1.72	6.93	5.01	1.43	1.98	3.97	42.30
1934	4.30	3.76	3.07	5.21	5.35	4.89	3.65	4.90	10.53	2.54	5.09	4.96	58.25
1935	4.36	3.18	2.58	2.37	2.16	5.46	5.56	1.75	3.63	0.90	4.81	1.30	38.06
Av. 20 yrs.	3.51	3.35	3.91	4.30	3.87	4.51	4.22	4.56	3.92	3.43	4.24	3.48	47.30

*Interpolated.

NORTH BRANDFORD, CONN. Elevation, 220 feet.
Record January 1928 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1928	1.85	4.70	2.20	4.70	2.88	6.61	7.70	4.29	2.87	3.38	1.64	3.35	46.17
1929	4.31	4.24	3.66	7.11	4.18	1.63	1.85	4.12	2.44	3.09	3.07	3.78	43.48
1930	2.90	3.36	3.34	2.28	5.22	4.19	2.12	1.14	0.53	2.62	6.04	3.47	37.21
1931	3.27	2.24	5.98	3.12	6.75	5.83	3.78	3.74	2.84	2.00	0.69	3.98	44.22
1932	5.41	2.15	5.56	2.34	2.26	2.88	2.12	4.19	3.42	6.38	6.93	2.27	45.91
1933	1.94	4.01	5.03	5.64	1.87	2.21	2.62	5.81	5.81	2.47	0.88	4.52	42.81
1934	3.71	3.95	2.69	6.99	5.24	3.49	2.02	4.20	9.94	2.68	3.23	5.29	53.43
1935	7.11	3.41	2.94	2.16	1.22	6.47	4.74	0.53	4.15	0.79	4.32	0.92	38.76
1936	6.91	2.76	6.50	3.72	1.70	8.76	1.48	2.93	4.86	5.17	1.20	8.19	54.18
1937	6.18	3.64	3.98	5.12	3.16	4.30	4.57	7.49	2.67	5.63	5.81	2.79	55.34
1938	3.69	2.46	2.40	2.90	4.07	6.57	8.93	3.50	16.81	2.77	4.03	3.75	61.88
Av. 11 yrs.	4.30	3.36	4.03	4.19	3.50	4.81	3.81	3.81	5.12	3.36	3.44	3.85	47.58
1939	3.61	5.28	6.23	4.82	0.79	1.84	1.64	5.83	2.88	4.29	2.88	5.22	45.31
1940	3.48	3.05	5.85	6.08	4.42	6.44	5.37	1.97	2.92	1.96	5.74	3.01	50.29
1941	2.82	2.10	2.19	1.43	2.87	4.62	3.15	2.82	1.35	3.16	3.97	4.31	34.79

NORTH GUILFORD, CONN. Elevation, 280 feet.
Record January 1931 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1931	2.95	1.49	5.01	4.53	7.71	5.35	4.24	3.97	2.36	2.02	0.58	4.27	44.48
1932	5.50	1.89	5.30	2.47	2.22	2.55	1.84	4.32	3.25	6.54	6.57	2.01	44.46
1933	1.97	3.32	5.69	5.35	1.68	1.87	1.75	6.18	6.28	2.66	1.14	4.14	42.03
1934	3.64	3.95	3.47	7.37	5.48	3.48	2.19	3.80	11.49	2.72	3.43	5.38	56.40
1935	7.23	3.56	2.67	2.47	1.32	6.39	4.44	0.45	3.99	0.74	4.49	0.99	38.74
1936	6.88	2.68	6.87	4.16	1.55	9.52	3.11	4.12	6.06	5.42	1.28	8.40	60.05
1937	6.36	3.46	3.73	5.43	3.59	3.77	4.20	8.98	3.19	5.19	6.89	2.54	57.33
1938	4.16	2.35	2.33	2.91	3.84	6.48	9.02	3.97	16.70	2.74	3.52	4.00	62.02
Av. 8 yrs.	4.84	2.84	4.38	4.34	3.42	4.93	3.85	4.47	6.66	3.50	3.49	3.97	50.69
1939	3.36	5.61	6.16	4.93	1.07	2.06	1.51	5.02	2.63	3.95	2.84	5.27	44.41
1940	3.57	2.84	4.46	6.12	4.67	6.76	6.12	1.84	3.05	1.87	5.85	2.96	50.11
1941	2.62	2.22	2.30	1.36	4.21	4.20	3.14	3.58	0.35	2.82	3.89	3.95	34.64

NORWALK, CONN. Elevation, 116 feet.
Record January 1892 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	6.85	7.46	8.55	8.60	8.53	10.54	11.81	11.38	7.87	9.09	8.86	8.58	57.85
Year	1923	1893	1912	1901	1898	1903	1925	1908	1902	1913	1892	1901	1901
Min.	1.22	0.49	0.23	0.77	0.07	0.56	0.65	0.37	0.23	0.31	0.95	0.92	34.88
Year	1916	1895	1915	1896	1903	1908	1924	1899	1914	1924	1908	1896	1910
1929	3.93	4.23	3.32	5.33	4.39	1.57	2.48	1.63	3.52	3.65	2.16	4.11	40.32
1930	2.98	2.69	2.15	2.51	3.29	4.41	1.54	2.97	1.32	2.07	7.30	2.85	36.08
1931	2.02	2.67	4.06	4.74	3.62	4.64	3.14	4.13	1.56	2.58	0.76	3.23	37.15
1932	4.44	2.70	4.63	1.97	2.09	2.43	1.62	2.68	3.30	4.43	6.69	2.49	39.47
1933	1.85	3.79	6.89	4.82	2.85	2.61	2.89	10.03	5.34	3.50	1.04	2.79	48.40
1934	2.75	4.00	4.61	4.03	5.44	4.41	4.49	2.68	15.64	3.02	3.46	3.53	58.06
1935	4.19	3.40	2.66	1.99	1.97	3.59	3.46	1.94	4.47	0.73	4.09	1.18	33.67
1936	7.11	2.91	7.03	3.99	4.36	6.56	2.28	3.54	4.14	3.07	1.22	8.49	54.70
1937	7.09	2.22	3.48	5.13	2.50	4.61	2.74	7.36	4.41	5.10	4.74	2.35	51.73
1938	3.93	2.36	2.31	2.88	3.97	5.13	7.18	3.97	12.63	2.29	3.58	2.67	52.90
Av. 47 yrs.	3.57	3.57	4.00	3.60	3.78	3.32	4.05	4.59	4.03	3.62	3.44	3.66	45.23
1939	4.53	6.04	5.13	5.16	1.04	4.84	0.95	9.79	3.40	5.57	2.05	2.58	51.08
1940	3.15	2.48	5.40	6.65	7.05	3.16	2.56	5.08	3.17	2.92	5.23	2.31	49.16
1941	3.37	3.00	2.24	2.05	2.94	5.22	6.68	4.60	0.51	3.85	4.25	3.93	42.64

NORWICH, CONN. Elevation, 150 feet.
Record January 1871 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.01	9.52	13.18	8.98	7.39	8.18	10.00	13.30	8.04	9.45	9.14	9.07	62.82
Year	1873	1886	1877	1874	1898	1903	1876	1874	1918	1877	1877	1901	1877
Min.	0.92	0.13	0.24	1.00	0.31	0.27	0.89	0.85	0.37	0.26	0.42	1.08	29.79
Year	1896	1901	1915	1896	1903	1873	1893	1876	1914	1924	1917	1892	1894
1929	4.84	2.68	3.86	6.34	3.65	1.21	3.05	4.93	1.69	2.01	2.41	3.85	40.52
1930	2.65	3.35	2.18	1.69	4.21	1.97	1.48	1.17	0.82	2.80	2.23	2.68	27.23
1931	3.32	1.84	4.92	2.37	4.41	3.85	3.51	4.13	1.52	2.47	1.17	3.38	36.89
1932	4.81	1.89	4.31	2.65	2.75	3.71	3.03	5.83	8.00	5.30	5.55	1.95	49.78
1933	1.10	3.64	4.81	5.83	2.53	1.74	2.26	5.41	6.08	3.42	1.46	2.66	40.94
1934	3.44	3.29	2.95	5.76	4.94	3.22	1.54	5.19	6.97	3.10	2.62	6.17	49.19
1935	5.96	2.33	1.59	1.79	1.41	6.02	3.93	0.70	4.32	0.31	4.12	0.41	32.89
1936	7.14	0.41	8.41	3.86	0.43	3.78	0.37	5.09	4.75	3.26	0.81	8.38	46.69
1937	6.44	1.51	3.90	4.39	2.64	3.73	2.76	6.18	3.66	3.99	5.34	1.59	46.13
1938	3.54	1.38	1.19	2.68	2.16	7.53	8.17	5.82	8.30	2.38	2.97	3.90	50.02
Av. 68 yrs.	3.88	3.41	4.05	3.69	3.18	3.14	3.60	4.38	3.48	3.59	3.64	3.73	43.77
1939	3.51	4.97	5.17	5.74	0.93	2.54	0.97	7.72	2.61	4.39	1.24	2.71	42.50
1940	2.98	2.26	4.62	5.89	4.28	1.29	3.87	0.85	2.68	1.85	6.25	1.89	38.71
1941	2.09	1.84	1.62	1.42	3.29	3.77	4.61	2.35	0.03	1.67	3.66	3.27	29.62

ORANGE, CONN. (Wepawaug Reservoir). Elevation, 190 feet.
Record November 1913 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1913	——	——	——	——	——	——	——	——	——	——	2.89	3.98	——
1914	5.51	2.99*	3.88	4.16	2.73	2.25	6.39	3.16	0.31	3.31	3.27	4.24	42.20
1915	8.43	5.65	0.25	1.76	3.21	3.28	2.95	7.36	1.90	2.97	1.74	5.74	45.24
1916	1.64	3.38	3.83*	2.90	4.35	5.87	4.88	1.48	3.26	2.23	2.92	3.27	40.01
1917	3.26	2.04	6.04	2.55	3.57	4.23	2.95	3.46	2.18	5.41	2.60	2.44	40.73
1918	3.19	3.39	1.73	4.47	3.47	5.57	4.19	2.72	5.02	1.60	3.51	4.08	42.94
1919	3.39	3.58	5.55	3.25	5.91	1.00	3.58	6.80	7.15	4.24	4.46	2.77	51.68
1920	2.27	1.81	3.78	5.61	4.32	5.21	4.62	2.90	2.75	3.44	6.31	6.37	49.39
1921	2.96	2.90	2.72	5.35	4.24	4.58	5.62	4.19	2.51	1.36	4.32	2.99	43.74
1922	1.56	3.04	4.63	3.42	5.12	7.47	5.20	2.70	2.16	2.98	1.36	4.10	43.74
1923	7.58	1.96	4.15	4.62	2.36	3.29	2.39	1.93	1.80	6.96	4.12	6.39	47.55
1924	4.16	2.94	0.83	7.29	6.11	2.15	0.57	5.06	3.81	0.69	2.18	2.76	38.55
1925	3.75	3.90	4.73	1.60	4.08	3.51	5.92	5.67	4.64	5.37	3.69	2.99	49.85
1926	2.15	5.82	2.92	4.12	1.41	3.12	3.15	6.84	3.76	4.85	6.22	3.85	48.21
1927	3.05	2.67	1.73	2.38	4.67	3.77	5.27	10.72	2.01	5.23	6.91	4.65	53.06
1928	1.96	4.17	2.33	3.89	1.86	6.21	5.40	4.28	5.10	1.16	1.55	3.13	41.04
1929	3.73	4.50	3.61	6.66	3.91	1.58	2.58	3.74	1.36	4.51	2.30	3.48	41.96
1930	2.66	2.61	3.42	2.22	5.04	3.07	1.20	1.98	0.83	1.91	6.01	2.76	33.71
1931	2.92	1.99	4.60	3.75	4.77	5.78	4.04	4.44	3.79	2.44	0.86	3.39	42.77
1932	5.04	2.80	4.64	2.88	2.23	2.30	2.62	4.07	3.58	6.13	6.82	1.87	44.98
1933	1.76	3.55	5.37	5.31	1.82	3.60	2.21	8.14	5.02	3.48	0.83	4.45	45.54
1934	3.15	3.52	2.50	6.85	5.60	4.12	2.81	1.87	11.62	2.87	3.10	4.41	52.42
1935	6.60	3.50	2.66	2.07	1.14	5.05	4.58	1.50	4.26	0.72	4.78	1.18	38.04
1936	7.14	2.55	7.37	4.10	2.25	9.25	1.61	2.70	3.54	4.96	1.05	7.97	54.49
1937	6.05	3.75	3.60	5.17	2.56	4.76	5.17	6.83	2.57	5.09	6.36	2.78	54.69
1938	3.92	3.12	2.56	2.90	4.84	6.35	7.02	2.73	12.36	2.99	3.61	3.32	55.72
Av. 25 yrs.	3.91	3.29	3.58	3.97	3.66	4.29	3.88	4.29	3.89	3.48	3.64	3.81	45.69
1939	3.87	5.29	6.42	5.14	1.19	2.68	2.80	6.16	2.26	4.63	2.77	3.51	46.72
1940	3.90	3.03	6.22	6.65	5.46	6.66	3.76	2.74	3.05	2.28	4.94	2.57	51.26
1941	2.47	2.70	2.00	1.63	2.57	4.44	4.45	3.86	0.95	2.90	4.03	4.18	36.18

*Interpolated.

POMFRET, CONN.
Record January 1854 to March 1869 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1854	3.94	7.15	1.81	6.70	3.46	5.43	3.39	0.53	5.71	2.45	9.63	6.94	57.14
1855	5.99	4.10	0.87	2.61	1.99	3.22	4.57	2.04	0.22	7.19	3.43	6.15	42.38
1856	5.97	1.70	1.15	3.45	——	1.39	3.50	12.50	4.31	2.15	2.19	——	——
1857	3.42	——	3.09	6.70	4.71	2.35	5.52	5.48	3.61	3.42	2.94	7.06	——
1858	2.95	1.51	3.00	4.12	2.58	4.22	5.37	6.23	5.05	——	1.42	2.63	——
1859	6.49	2.57	8.82	2.53	3.36	8.59	2.01	7.75	2.90	2.43	3.17	3.16	53.78
1860	2.48	2.12	——	1.92	2.41	4.59	5.69	——	6.94	2.04	5.02	4.54	——
1861	3.15	3.20	3.16	4.84	5.36	1.97	3.78	4.82	3.94	2.93	4.08	1.65	42.88
1862	4.43	1.80	2.81	2.21	2.45	2.24	3.67	1.57	3.13	4.00	5.61	2.27	36.19
1863	4.44	3.58	7.00	1.85	2.15	——	11.79	6.24	2.90	5.16	5.57	5.10	——
1864	3.34	1.00	2.12	——	2.73	1.12	2.20	3.45	3.07	4.93	5.47	6.22	——
1865	3.55	5.00	5.25	2.88	2.12	4.31	5.72	0.97	0.31	4.47	2.64	2.90	40.12
1866	0.73	5.03	3.33	3.47	——	5.15	3.58	3.10	5.71	3.13	4.22	3.55	——
1867	1.26	5.25	2.51	2.26	5.07	4.91	3.16	12.13	0.77	3.21	4.28	1.86	46.67
1868	2.02	1.80	2.20	4.72	7.71	3.19	1.35	5.63	8.67	0.70	4.42	1.10	43.51
1869	1.75	4.40	5.20	——	——	——	——	——	——	——	——	——	——

PROSPECT, CONN. (New Haven Water Co.). Elevation, 425 feet.
Record May 1915; August 1915 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1915	——	——	——	——	3.05	——	——	11.92	2.17	3.58	2.50	6.33	——
1916	1.11	4.90	4.22	1.77	5.14	5.37	4.80	2.86	5.14	2.28	3.46	3.57	44.62
1917	3.48	1.54	4.69	3.70	3.52	4.25	2.49	4.68	2.33*	6.43	2.57	2.08	41.76
1918	3.48	3.28	1.18	4.87	3.49	4.79	7.77	2.96	5.99	1.30	3.16	3.74	46.01
1919	3.41	3.27	7.20	2.76	6.75	1.86	5.91	5.84	6.36	2.92	4.66	2.06	53.00
1920	1.53	1.10	4.22	6.46	4.20	6.98	7.84	2.53	4.05	4.32	6.01	8.49	57.73
1921	2.79	3.20	3.47	4.99	3.59	2.94	6.09	2.43	3.27	2.04	6.90	2.90	44.61
1922	1.46	0.83	4.63	3.14	6.34	7.36	4.78	4.51	1.57	2.92	1.61	1.68	40.83
1923	5.34	1.97	2.70	3.91	2.41	3.03	1.84	1.69	1.89	7.66	4.07	6.09	42.60
1924	5.25	2.33	1.25	6.78	6.75	1.90	1.43	5.97	4.65	1.57	2.57	2.28	42.73
1925	2.07	3.66	4.59	1.83	2.28	2.89	7.17	4.42	4.29	4.44	3.55	3.10	44.29
1926	1.89	3.69	2.40	3.99	2.23	1.82	3.85	4.98	3.92	4.20	8.16	1.83	42.96
1927	2.42	1.27	2.02	2.76	5.40	3.88	5.98	7.04	1.80	7.03	8.30	5.50	53.40
1928	3.40	5.10	2.49	4.46	2.45	6.85	7.94	4.40	4.57	1.46	1.21	2.63	46.96
1929	4.88	5.21	3.94	6.20	4.87	1.23	1.04	5.36	2.00	4.92	2.56	3.34	45.55
1930	2.63	2.37	4.50	2.56	4.49	5.33	1.78	3.74	1.46	2.05	5.58	1.76	38.25
1931	2.88	1.94	4.83	3.69	5.38	5.25	2.84	3.58	2.30	2.10	0.55	3.34	38.68
1932	5.43	1.82	4.00	2.79	1.96	2.74	2.47	3.66	3.45	6.24	9.20	1.15	44.91
1933	1.89	2.56	5.55	4.98	3.31	3.28	4.56	7.41	7.49	3.03	0.63	4.35	49.04
1934	4.13	2.80	2.67	8.13	7.91	4.88	7.50	3.43	12.68	2.48	2.00	5.43	64.04
1935	4.57	3.54	2.26	2.96	1.75	6.95	3.44	1.11	4.48	0.57	3.75	1.24	36.62
1936	6.98	2.70	8.56	4.15	4.13	5.25	1.13	2.26	4.47	4.74	1.22	8.07	53.66
1937	6.25	3.35	3.81	5.42	4.28	3.54	2.24	8.33	3.99	6.56	6.57	2.64	56.98
1938	6.41	2.42	2.45	3.19	4.68	6.31	9.06	3.44	12.50	2.68	4.04	5.60	62.78
Av. 23 yrs.	3.64	2.82	3.81	4.15	4.23	4.29	4.52	4.20	4.55	3.65	4.01	3.61	47.48
1939	3.81	5.44	6.18	5.18	1.02	2.71	4.70	6.52	3.53	4.41	2.67	3.75	49.92
1940	5.01	2.72	5.76	6.92	5.01	6.30	4.11	2.06	2.63	2.20	5.66	3.35	51.73
1941	2.00	4.15	2.39	1.36	2.49	4.41	7.50	4.49	0.37	2.63	4.00	5.77	41.56

*Interpolated.

SHELTON, CONN. (Trap Falls Reservoir). Elevation, 353 feet.
Record 1922 to 1927; August 1930 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1922	——	——	——	——	——	——	——	——	——	4.17	1.37	3.56	——
1923	7.39	1.91	4.22	4.11	3.07	2.37	0.86	1.45	——	5.83	5.68	5.20	——
1924	4.24	2.51	1.33	9.19	5.46	1.55	1.39	4.57	4.49	0.30	2.32	2.61	39.96
1925	2.10	1.65	4.25	1.82	3.84	2.90	8.76	4.06	3.91	3.00	3.25	2.75	42.29
1926	1.88	5.61	2.22	3.37	1.64	2.31	3.38	6.97	3.55	4.92	3.00	4.54	43.39
1927	2.30	3.27	1.80	2.69	4.30	3.28	——	11.83	2.34	——	——	——	——
1930	——	——	——	——	——	——	——	3.22	0.95	1.78	6.35	3.61	——
1931	3.61	2.36	4.84	4.90	4.09	4.53	3.20	4.10	3.58	2.48	0.86	2.86	41.41
1932	5.11	2.63	4.66	1.97	2.21	2.19	3.11	4.01	2.45	5.40	7.68	1.51	42.93
1933	1.72	4.36	4.49	5.02	2.21	2.39	2.50	8.98	3.77	4.18	0.74	2.37	42.73
1934	3.33	2.04	——	3.21	5.15	5.49	5.32	4.02	2.09	13.29	2.56	3.92	——
1935	4.30	2.95	2.23	1.84	1.54	3.78	4.15	4.19	0.87	4.42	0.65	——	——
1936	6.59	2.12	6.03	4.90	3.17	6.33	1.33	3.08	4.17	4.41	0.93	7.15	50.71
1937	7.23	2.03	3.10	5.95	2.92	2.81	3.95	——	3.02	5.19	6.70	2.21	——
1938	4.01	2.27	1.38	2.57	3.42	4.13	7.65	3.12	14.67	1.87	3.38	3.50	51.97
1939	4.06	6.06	5.33	4.72	0.43	3.95	1.02	5.65	1.64	6.15	1.73	3.46	44.20
1940	3.69	1.92	5.28	6.32	8.94	3.45	4.60	3.30	3.19	1.87	5.67	2.32	50.55
1941	2.34	2.83	1.90	1.44	2.89	4.52	6.25	4.14	0.14	2.52	4.18	4.44	37.59

SHELTON (DERBY), CONN. Elevation, 50 feet.
Record January 1896 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1896	2.45	8.29	5.28	0.74	3.62	3.54	4.27	2.55	5.44	2.55	4.08	1.62	44.43
1897	4.84	1.53	3.37	2.41	7.03	3.86	19.49	5.83	2.79	0.78	6.61	6.09	64.63
1898	5.68	4.68	2.93	4.59	9.00	0.60	4.17	6.93	2.75	9.42	6.38	3.49	60.62
1899	4.12	4.44	6.90	2.58	2.47	3.00	4.14	0.30	4.60	2.59	1.48	2.41	39.03
1900	4.09	6.83	4.36	2.33	2.97	2.34	2.59	1.05	2.67	3.97	6.72	2.45	42.37
1901	1.96	0.42	7.24	11.59	7.64	0.15	4.05	8.73	5.42	4.21	2.15	10.19	63.75
1902	2.54	3.89	7.57	4.98	1.63	5.12	2.65	2.31	6.27	8.23	0.64	7.89	53.72
1903	4.38	5.07	6.05	2.73	0.40	10.05	3.71	9.56	2.70	3.85	2.30	4.25	55.05
1904	2.82	4.30	4.10	5.64	3.07	2.08	2.70	6.00	0.90	2.61	2.37	3.00	39.59
1905	3.54	2.32	3.59	3.06	1.79	4.27	9.52	6.19	8.34	2.82	2.19	5.67	53.30
1906	3.54	2.39	4.94	5.74	5.11	4.23	5.08	2.10	6.25	7.73	1.94	4.82	53.87
1907	3.21	1.84	2.30	3.13	4.42	3.59	1.86	1.14	7.79	5.62	5.90	5.42	46.22
1908	4.58	6.43	3.04	2.28	6.63	0.97	4.32	10.73	0.89	2.76	0.91	4.33	47.87
1909	4.10	6.52	4.66	8.02	2.43	2.56	1.57	4.12	3.22	1.46	1.45	4.61	44.72
1910	8.29	4.27	0.91	3.99	3.42	5.38	2.91	6.40	1.63	1.37	3.80	2.19	44.56
1911	3.63	2.64	4.62	3.73	1.12	2.86	4.16	4.49	2.70	8.57	6.88	3.66	49.06
1912	2.59	2.51	9.00	4.13	6.36	0.66	2.53	3.17	3.36	3.20	4.82	6.34	48.67
1913	4.13	3.12	6.57	5.93	3.19	1.18	2.03	4.99	3.73	11.74	2.80	3.80	53.21
1914	5.35	2.99	4.44	4.37	2.82	2.24	6.74	2.61	0.25	3.85	3.16	4.17	42.99
1915	9.41	6.49	0.20	1.18	3.23	4.40	3.13	7.14	2.10	3.96	2.05	5.41	48.70
1916	1.73	5.58	3.83	2.80	4.73	4.99	5.64	1.64	3.37	2.34	3.01	3.55	43.21
1917	3.42	1.48	6.82	2.69	3.19	3.06	3.24	4.42	1.94	6.19	2.37	2.09	40.91
1918	4.09	3.39	2.02	4.82	1.97	4.95	3.94	3.00	3.96	1.49	3.30	5.21	42.14
1919	2.65	4.19	6.50	3.20	5.62	3.34	3.91	6.77	6.21	4.31	4.60	2.85	54.15
1920	3.13	3.41	6.16	6.40	5.20	5.06	3.62	2.26	6.34	0.75	6.51	7.52	56.36
1921	3.33	2.90	3.39	4.99	5.00	4.47	6.25	2.58	2.74	0.95	5.22	2.05	43.87
1922	2.35	2.97	6.01	0.97	5.41	7.89	5.52	2.07	1.76	3.34	1.42	4.21	43.92
1923	5.07	1.80	3.98	4.40	1.85	2.74	1.22	1.56	1.79	6.69	6.62	5.83	43.55
1924	3.28	3.45	1.65	9.11	5.60	1.64	0.95	4.58	4.76	0.22	2.72	2.74	40.70
1925	4.69	4.49	4.64	2.38	4.25	3.36	9.34	1.49	3.71	4.56	3.42	2.93	49.26
1926	2.57	5.61	4.63	3.05	2.67	2.35	1.79	6.70	3.36	4.64	7.34	4.47	48.58
1927	2.37	2.00	1.41	2.89	5.00	3.55	6.04	11.70	2.20	5.54	7.72	5.86	56.28
1928	2.99	5.55	2.77	5.27	2.30	7.26	5.64	4.48	4.47	1.01	3.41	1.47	46.62
1929	4.60	4.71	3.36	7.50	4.58	1.68	2.59	3.58	1.86	4.45	2.00	4.25	45.16
1930	3.00	2.61	4.17	2.66	4.03	4.31	1.32	2.58	0.72	1.80	7.60	3.46	38.26
1931	2.87	2.34	5.47	3.65	4.69	4.94	3.84	4.02	3.76	2.01	0.93	3.62	42.14
1932	5.29	2.87	5.78	2.13	1.89	1.88	2.47	5.20	2.62	5.57	7.05	2.31	45.06
1933	1.92	4.31	7.40	5.42	2.39	2.74	2.27	7.27	5.28	4.29	0.83	3.65	47.77
1934	4.20	3.96	5.89	4.30	6.00	5.37	2.98	0.91	12.87	2.54	4.20	4.49	57.71
1935	5.02	3.76	2.50	2.34	1.45	4.66	4.30	4.38	3.96	0.92	4.67	1.04	39.00
1936	7.74	3.01	6.68	4.89	2.69	6.25	1.64	2.96	4.87	3.66	0.88	8.82	54.09
1937	7.21	2.62	3.82	6.32	3.08	5.43	2.95	5.92	3.03	5.84	6.57	3.09	55.88
1938	4.33	2.90	2.26	2.84	4.15	6.94	6.55	3.01	12.60	2.00	3.08	4.46	55.12
Av. 43 yrs.	4.02	3.74	4.49	4.14	3.85	3.77	4.18	4.40	4.00	3.87	3.82	4.23	48.51
1939	4.11	6.64	5.49	——	1.46	4.65	0.99	5.05	2.11	5.07	1.44	3.53	——
1940	4.10	2.98	6.13	7.30	8.27	3.81	4.30	2.59	3.30	2.12	6.16	2.86	53.92
1941	3.05	3.38	2.68	1.61	3.17	3.88	5.46	4.51	0.18	2.23	5.19	4.35	39.69

SIMSBURY, CONN. (West Simsbury). Elevation, 300 feet.
Record August 1888 to December 1912 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1888†	——	——	——	——	——	——	——	3.67	8.88	5.29	4.27	5.40	——
1889†	3.20	8.67	3.42	4.00*	4.40*	3.20	8.67	3.42	4.66	4.01	6.83	2.47	56.95
Max.	7.94	9.06	6.76	11.10	7.15	9.79	16.21	7.38	9.83	9.31	6.83	8.06	59.53
Year	1891	1900	1899	1901	1901	1903	1897	1898	1907	1911	1889	1901	1897
Min.	1.41	0.52	0.64	0.66	0.73	0.57	1.17	0.75	1.17	0.90	0.61	1.28	35.71
Year	1901	1901	1910	1892	1903	1912	1907	1894	1908	1892	1890	1892	1908
Av. 23 yrs.	3.66	3.83	4.04	3.37	3.65	3.24	4.37	4.24	4.03	3.90	3.35	3.89	45.57

†Record for 1888-89 found since previous publication.
*Interpolated.

SOUTHINGTON, CONN. Elevation, 140 feet.
Record January 1871 to August 1921 inclusive

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.81	7.70	8.45	9.65	7.40	12.10	19.90	9.55	11.90	10.30	7.68	9.80	63.54
Year	1891	1900	1912	1901	1908	1903	1897	1885	1907	1913	1898	1901	1897
Min.	1.08	0.90	0.20	0.85	0.03	0.45	1.15	0.40	0.15	0.55	0.65	1.05	30.02
Year	1916	1901	1915	1882	1887	1883	1907	1882	1914	1910	1902	1877	1883
Av. 50 yrs.	3.77	3.85	4.19	3.15	3.39	3.07	4.17	4.46	3.49	3.52	3.45	3.86	44.37

SPRAGUE, CONN. (Baltic). Elevation, 140 feet.
Record November 1911 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1911	———	———	———	———	———	———	———	———	———	———	5.74	3.78	———
1912	1.65	1.55	9.43	2.79	6.15	0.95	2.98	3.09	2.19	1.86	3.75	4.27	40.66
1913	5.15	1.85	6.72	5.07	2.91	1.52	1.92	3.95	5.02	5.61	3.12	4.02	46.86
1914	3.77	1.78	2.67	4.63	2.23	0.94	3.11	3.50	0.50*	3.44	2.35	2.84	31.76
1915	7.25	5.12	0.30*	1.45	2.37	2.02	1.64	5.35	1.31	3.49	1.78	3.93	36.01
1916	1.26	3.89	2.50	3.00	0.14	6.86	8.42	0.66	2.91	1.87	1.36	4.05	36.92
1917	2.94	1.59	3.59	1.65	1.64	5.39	1.74	4.97	5.96	3.71	1.88	2.25	37.31
1918	2.59	1.93	3.60	3.53	2.22	6.29	2.22	6.06	8.94	0.82	2.86	3.11	44.17
1919	4.41	1.30	8.18	5.02	4.15	2.88	5.86	3.77	8.05	1.68	3.87	2.42	51.39
1920	3.00*	4.50	2.71	5.29	4.99	4.75	5.15	2.72	5.00*	3.25	4.15	2.20	47.71
1921	3.17	1.42	2.03	5.07	2.27	0.67	10.28	2.33	2.50	1.23	3.61	4.60	39.18
1922	0.92	1.17	4.71	3.23	3.90	4.18	6.63	3.40	6.56	3.25	1.13	2.60	41.68
1923	2.82	0.80	3.10	2.64	4.17	4.77	1.99	2.63	3.88	4.00	3.46	5.43	39.69
1924	4.48	2.55	0.52	5.17	3.94	1.95	1.50	4.12	3.81	1.12	1.94	2.37	33.47
1925	1.96	2.32	3.33	3.08	3.48	1.90	6.16	3.43	1.09	3.89	3.77	2.90	37.31
1926	1.94	4.39	2.25	2.30	2.69	2.08	4.41	5.19	1.45	4.26	4.49	0.55	36.00
1927	5.24	1.92	1.38	2.80	3.98	2.09	5.44	7.94	1.78	7.12	4.61	6.08	50.38
1928	2.18	3.80	2.35	4.41	1.77	4.07	3.54	3.40	3.49	3.90	1.30	3.70	37.91
1929	4.61	1.30	4.91	5.61	4.91	1.30	1.86	2.70	1.00	0.85	2.34	3.23	34.62
1930	3.25	2.62	2.37	2.35	3.35	2.76	2.11	1.39	1.46	2.80	4.07	4.10	32.63
1931	3.70	1.59	5.53	2.73	4.95	5.27	4.46	4.41	1.41	2.35	1.00	3.40	40.80
1932	5.14	1.89	4.88	2.87	2.73	4.72	1.52	4.00	5.73	6.03	6.29	1.99	47.79
1933	1.99	3.97	5.33	5.62	3.72	1.72	1.54	4.45	6.28	3.04	1.56	2.96	42.18
1934	3.40*	3.13	2.85	6.33	5.07	3.63	2.00	3.63	7.03	3.29	4.53	4.27	49.16
1935	6.17	2.82	2.25	2.25	1.25	4.99	3.44	0.86	3.82	0.63	4.06	1.06	33.60
1936	7.79	2.21	8.59	4.25	1.82	3.83	1.58	3.88	4.69	4.09	1.07	9.31	53.11
1937	5.20	1.81	3.82	4.71	3.73	4.81	2.52	5.26	4.31	4.50	6.63	2.60	49.90
1938	4.92	2.66	2.51	2.87	4.42	6.51	13.44	4.31	11.83	2.74	3.32	3.45	62.98
Av. 27 yrs.	3.74	2.44	3.79	3.73	3.29	3.44	3.98	3.76	4.15	3.14	3.11	3.47	42.04
1939	3.47	5.45	5.70	4.75	1.27	2.89	1.11	5.41	3.28	6.41	1.20	3.26	44.20
1940	3.09	2.21	4.89	6.77	4.60	3.75	4.41	1.93	2.99	2.36	6.77	2.22	45.99
1941	2.15	2.37	2.39	1.21	3.48	3.65	5.36	4.04	0.00	1.72	2.34	3.92	32.63

*Interpolated.

STAMFORD, CONN. (North Stamford Reservoir). Elevation, 200 feet.
Record January 1911 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1911	3.02	2.10	2.77	3.27	1.85	2.12	1.92	4.40	3.07	8.81	4.84	2.44	40.61
1912	1.85	1.94	7.79	3.58	3.77	0.97	1.28	4.18	2.79	3.93	3.95	4.88	40.91
1913	3.91	1.78	5.77	7.01	2.27	0.83	1.04	5.54	2.59	7.58	2.06	2.58	42.96
1914	5.58	3.68	4.53	4.78	3.12	2.28	4.95	1.58	0.37	4.01	2.93	4.64	42.45
1915	6.31	5.03	0.06	1.65	2.97	1.64	6.68	10.16	2.25	3.90	1.52	2.09	44.26
1916	1.15	3.85	2.52	2.69	3.37	6.43	6.12	1.07	2.84	3.84	2.95	2.89	39.72
1917	2.07	1.90	3.53	2.55	3.78	3.15	2.09	3.64	1.51	8.29	0.82	2.13	35.46
1918	1.28	2.81	0.94	3.84	2.95	3.11	4.09	2.20	5.04	1.08	3.43	3.83	34.60
1919	3.89	3.74	6.46	2.80	4.45	2.16	6.68	6.90	5.42	5.47	3.76	2.33	54.06
1920	2.07	3.67	3.15	4.03	4.04	5.73	3.70	6.06	5.94	3.24	3.91	5.89	51.43
1921	2.90	1.28	3.00	5.50	3.89	4.40	4.23	3.06	3.66	1.66	4.14	1.27	38.99
1922	0.80	1.39	3.52	2.24	4.25	8.80	6.03	3.41	2.91	2.42	0.95	1.61	38.33
1923	3.90	0.42	2.49	3.29	1.97	3.99	1.07	1.26	2.01	4.20	3.59	4.61	32.80
1924	3.73	1.50	1.21	5.66	4.27	1.47	0.46	6.78	4.09	0.33	1.86	1.67	33.03
1925	1.00	3.70	4.60	1.79	4.34	3.35	8.37	3.92	3.94	4.48	3.68	2.49	45.66
1926	2.30	4.76	3.47	2.85	2.05	2.03	4.00	4.75	2.89	4.73	5.24	1.80	40.87
1927	2.85	2.83	1.79	2.20	5.04	2.40	6.71	7.30	3.19	7.32	5.35	4.04	51.02
1928	1.80	4.19	2.72	4.75	2.92	7.96	5.11	5.17	6.08	1.21	2.88	1.03	45.82
1929	3.27	3.51	3.47	6.49	4.19	1.33	2.43	2.09	3.08	3.64	2.12	3.28	38.90
1930	2.80	2.49	2.71	2.76	3.10	5.21	2.35	4.57	1.34	1.45	5.91	1.97	36.66
1931	2.07	2.69	4.22	4.18	5.67	3.44	4.32	3.84	1.68	2.42	0.64	3.11	38.28
1932	4.39	2.93	4.92	2.31	1.85	3.80	2.39	3.60	2.50	5.30	6.28	2.64	42.91
1933	1.90	4.00	6.18	4.17	2.72	3.00	1.67	9.37	5.83	3.28	0.99	3.36	46.47
1934	3.65	3.29	4.15	3.67	5.47	4.06	3.59	3.79	14.09	2.66	3.13	3.48	55.03
1935	3.23	3.00	2.58	1.71	2.17	3.58	3.30	2.25	4.53	1.09	2.73	1.01	31.18
1936	6.63	2.61	7.07	3.79	3.27	4.65	2.39	4.60	4.59	2.07	0.97	8.16	50.80
1937	6.95	2.29	3.01	5.11	3.45	4.62	2.31	7.03	4.16	4.92	4.74	2.59	51.18
1938	4.37	1.99	2.03	2.39	3.44	5.96	9.12	4.42	10.35	1.79	2.81	3.36	52.03
Av. 28 yrs.	3.20	2.83	3.60	3.61	3.45	3.66	3.87	4.53	4.03	3.76	3.15	3.04	42.73
1939	5.32	5.80	4.79	4.74	1.27	4.45	2.48	7.25	2.52	4.81	1.55	2.75	47.73
1940	3.40	3.12	5.18	6.22	8.38	3.37	2.63	5.38	3.00	2.54	4.83	2.38	50.43
1941	——	——	——	2.13	3.42	3.85	5.64	4.42	0.85	2.95	3.16	3.80	——

STAMFORD, CONN. (Laurel Reservoir). Elevation, 340 feet.
Record January 1927 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1927	2.53	3.12	1.99	2.39	5.23	2.09	6.57	8.96	3.03	6.80	6.59	4.81	54.11
1928	1.99	4.63	2.53	4.73	1.99	7.36	4.45	6.89	5.65	1.09	2.75	0.97	45.03
1929	3.80	3.22	2.73	6.07	3.68	1.30	2.64	2.51	2.78	4.15	2.07	3.32	38.27
1930	2.89	2.15	3.02	3.11	3.19	5.28	3.23	5.64	1.73	1.36	5.96	2.07	39.63
1931	2.30	2.68	4.49	4.50	7.27	3.58	3.19	3.23	1.72	2.49	0.83	3.09	39.37
1932	4.73	3.02	4.91	2.26	1.80	3.00	1.85	3.90	2.67	5.93	7.17	2.64	43.88
1933	1.66	3.79	6.54	4.29	2.64	3.76	2.01	10.09	5.46	2.94	0.97	3.67	47.82
1934	4.00	3.36	4.71	3.70	5.50	5.17	3.52	3.34	12.86	3.03	3.92	4.25	57.36
1935	3.34	3.03	2.66	1.53	2.38	4.51	4.27	1.94	5.33	1.33	3.85	1.02	35.19
1936	7.14	2.96	8.25	4.76	3.89	5.08	3.18	3.53	5.24	2.60	1.40	8.68	56.71
1937	6.93	2.63	3.12	6.48	3.87	6.54	3.06	7.80	4.75	6.66	6.05	2.89	60.78
1938	5.06	2.15	2.60	3.20	4.01	7.03	10.22	3.97	11.15	2.15	3.00	3.93	58.47
Av. 12 yrs.	3.86	3.06	3.96	3.92	3.79	4.56	4.02	5.15	5.20	3.38	3.71	3.44	48.05
1939	5.23	6.12	4.95	4.88	0.90	4.73	3.58	8.16	3.15	5.02	1.82	2.98	51.52
1940	4.16	3.29	6.15	7.21	8.67	3.68	2.77	6.34	3.04	2.73	5.12	2.55	55.71
1941	2.97	3.16	2.59	2.31	4.52	3.68	8.93	6.65	0.95	2.88	3.20	4.44	46.28

THOMASTON, CONN. (Wigwam Reservoir). Elevation, 576 feet.
Record January 1924 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1924	5.04	2.60	1.68	6.84	4.84	3.41	1.08	3.96	5.98	1.09	3.31	2.44	42.27
1925	3.06	4.41	5.04	1.74	2.68	2.66	4.62	3.09	4.36	3.88	3.15	2.12	40.81
1926	2.56	5.23	2.73	3.52	1.53	2.13	4.27	6.64	2.18	4.62	6.46	3.73	45.60
1927	2.58	3.54	1.88	2.17	5.83	2.30	6.34	8.17	2.45	5.87	8.96	5.10	55.19
1928	3.13	4.41	3.24	4.33	2.30	6.30	7.44	6.04	3.20	0.78	1.17	2.71	45.05
1929	4.53	3.08	4.01	8.14	5.31	3.54	0.80	4.85	3.02	1.21	2.74	4.30	45.53
1930	2.26	1.79	2.92	1.97	3.14	5.89	1.94	2.98	1.51	2.15	4.30	2.26	33.11
1931	2.76	1.87	3.74	2.74	5.57	5.04	3.64	3.97	1.35	1.96	1.56	3.15	37.35
1932	4.96	3.14	4.63	2.62	3.92	1.49	2.42	10.12	2.97	5.61	7.37	1.96	51.21
1933	1.97	4.00	5.05	5.23	2.14	2.31	2.59	7.52	5.06	2.49	1.38	3.52	43.26
1934	4.07	4.42	2.94	5.41	6.50	2.95	4.26	4.50	12.67	2.81	3.63	5.96	58.12
1935	5.09	3.36	2.22	2.66	2.94	3.59	7.37	1.17	4.01	0.43	3.85	1.26	37.95
1936	7.00	2.84	6.38	4.28	2.95	4.97	2.22	4.84	3.35	3.62	1.50	6.59	50.54
1937	6.55	2.76	3.02	3.67	4.52	7.64	4.38	8.45	4.14	5.84	5.15	2.17	58.29
1938	5.53	2.12	1.96	4.22	3.59	5.46	12.10	4.47	11.52	2.30	3.91	3.91	61.09
Av. 15 yrs.	4.07	3.30	3.43	3.97	3.85	3.98	4.36	5.38	4.52	2.98	3.90	3.28	47.02
1939	3.60	3.80	5.15	5.52	1.39	3.61	1.24	12.19	2.91	3.50	2.36	2.91	48.18
1940	3.44	4.70	5.24	5.78	5.68	3.44	2.55	2.60	2.81	2.04	5.68	3.15	47.11
1941	2.31	3.02	2.82	0.97	1.94	5.84	4.00	4.23	0.77	2.82	3.40	3.68	35.80

THOMPSON, CONN. (North Grosvenordale). Elevation, 355 feet.
Record January 1891 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.67	8.93	8.14	7.62	6.46	7.73	9.09	7.70	10.01	9.12	9.69	10.43	60.92
Year	1891	1896	1903	1904	1906	1920	1897	1908	1918	1895	1895	1901	1920
Min.	1.18	0.65	0.12	0.59	0.35	0.18	0.76	0.84	0.33	0.17	0.73	1.29	26.20
Year	1908	1895	1915	1892	1911	1894	1905	1907	1914	1924	1917	1892	1910
1929	4.34	3.37	4.60	8.15	4.93	1.74	0.87	1.74	0.55	2.86	3.66	4.27	41.08
1930	2.82	2.97	2.95	1.70	2.86	2.70	3.34	1.74	0.90	2.73	3.19	3.51	31.41
1931	2.95	1.33	5.57	3.30	4.27	7.57	2.42	6.47	1.03	2.05	1.03	3.76	41.75
1932	5.52	2.62	5.80	1.61	1.44	2.60	2.19	7.60	8.13	5.70	5.93	2.06	51.20
1933	1.73	4.38	7.85	7.26	2.89	2.08	3.93	3.80	9.12	3.93	2.01	4.19	53.17
1934	4.18	4.02	3.15	5.05	5.17	3.99	3.93	3.80	9.10	3.93	2.01	4.18	52.51
1935	7.00	3.58	1.94	4.16	1.58	4.79	2.93	0.98	3.35	0.03	5.11	1.05	36.50
1936	7.91	2.92	10.68	5.24	1.18	1.34	2.93	8.62	4.64	3.24	1.84	7.87	58.41
1937	5.38	1.85	3.29	4.93	3.19	3.17	3.15	5.28	6.32	3.91	4.08	5.22	49.77
1938	6.44	2.17	3.45	2.76	4.28	10.77	13.63	4.59	12.91	1.83	3.83	3.83	70.49
Av. 48 yrs.	4.01	3.65	4.20	3.71	3.24	3.47	3.90	4.02	3.88	3.24	3.63	3.79	44.74
1939	2.56	4.27	7.34	4.92	0.93	3.31	1.98	8.98	1.86	3.46	3.13	3.90	46.64

TORRINGTON, CONN. (High School). Elevation, 625 feet.
Record 1902 to 1924 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.51	6.08	6.69	7.49	6.60	10.19	8.22	6.59	9.84	10.08	7.18	6.37	53.56
Year	1915	1915	1913	1909	1922	1903	1902	1922	1907	1913	1921	1902	1902
Min.	1.00	1.31	1.43	1.71	0.82	2.14	1.26	2.36	0.47	0.10	0.33	2.18	35.02
Year	1916	1905	1924	1919	1903	1908	1924	1906	1914	1924	1908	1919	1908
Av. 13 yrs.	3.49	3.06	3.85	3.80	3.44	4.46	4.34	4.50	4.46	4.31	2.82	3.53	46.06

TORRINGTON, CONN. (Torrington Register). Elevation, 600 feet.
Record January 1920 to December 1938 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1920	2.39	4.03	5.97	4.60	4.11	6.23	4.20	3.33	7.25	0.78	4.02	6.24	53.15
1921	3.17	3.67	3.83	6.04	2.21	3.25	3.82	2.35	4.57	1.40	4.30	2.46	41.07
1922	1.95	3.22	7.08	1.57	5.44	5.91	3.46	5.99	2.23	3.65	1.28	3.90	45.68
1923	6.65	1.71	2.97	3.93	2.68	3.16	3.12	2.31	4.11	5.90	3.44	3.87	43.85
1924	4.64	2.17	1.51	7.23	3.70	2.21	1.16	3.88	5.87	0.07	2.60	2.27	37.31
1925	3.23	3.92	4.61	2.13	3.12	4.02	5.17	1.29	4.62	3.29	3.47	2.52	41.39
1926	2.36	4.89	3.14	2.95	2.10	2.55	3.28	3.40	3.23	5.11	4.82	1.35	39.18
1927	2.52	3.42	2.11	1.33	5.43	2.24	7.48	6.23	1.82	6.12	8.37	4.78	51.85
1928	3.18	4.40	2.72	3.96	2.61	5.35	6.15	3.31	3.59	0.74	1.34	1.59	38.94
1929	4.67	3.24	3.14	7.80	4.40	2.29	1.45	1.85	4.05	3.62	2.91	4.45	43.87
1930	2.37	2.18	3.68	2.15	3.31	4.21	4.97	2.99	2.68	1.61	3.92	2.52	36.59
1931	2.90	2.00	3.52	2.93	6.91	5.81	2.79	3.69	1.25	2.39	1.12	3.59	38.90
1932	5.08	2.47	4.45	1.23	3.06	2.47	3.61	7.10	3.27	5.61	8.24	1.91	48.50
1933	1.83	3.47	4.58	6.25	2.15	0.93	3.04	6.87	6.11	3.19	1.11	3.56	43.09
1934	4.24	3.45	2.85	5.19	5.24	2.96	2.54	4.37	12.13	2.64	4.58	4.57	54.76
1935	6.39	3.41	2.20	2.28	2.45	4.89	5.26	1.95	3.92	0.78	2.55	0.98	37.06
1936	7.31	5.67	8.30	4.20	4.59	4.45	3.49	4.17	3.19	3.92	1.51	6.31	57.11
1937	7.62	2.90	3.24	3.82	5.49	7.04	5.63	8.20	3.89	6.82	5.29	2.49	62.43
1938	5.98	2.64	1.51	3.33	2.20	7.16	10.57	4.12	13.01	2.74	4.13	4.02	61.41
Av. 19 yrs.	4.13	3.31	3.76	3.84	3.75	4.06	4.27	4.07	4.78	3.18	3.63	3.33	46.11

TRUMBULL, CONN. (Bunnells Upper Reservoir). Elevation, 188 feet.
Record 1927 to 1930 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1927	———	———	———	———	———	———	———	———	———	5.93	6.14	5.28	———
1928	1.00	4.85	2.41	3.82	1.99	7.08	4.99	4.41	———	3.30	3.14	1.46	———
1929	4.04	4.77	2.96	6.67	3.51	1.67	1.52	2.87	6.25	2.43	2.17	2.76	41.62
1930	2.32	2.48	3.18	2.11	3.77	3.55	3.22	———	———	———	———	———	———

VOLUNTOWN, CONN. Elevation, 260 feeet.
Record 1885 to 1926 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.60	11.25	8.84	9.61	7.10	7.07	9.71	7.77	8.41	9.33	8.48	10.74	60.84
Year	1915	1886	1901	1901	1893	1922	1916	1922	1899	1898	1921	1901	1898
Min.	1.07	1.02	0.18	1.19	0.46	0.66	1.03*	1.17	0.85	0.39	0.43	1.62	34.05
Year	1916	1895	1915	1915	1903	1912	1909	1907	1885	1924	1917	1892	1910
Av. 39 yrs.	4.38	4.10	4.29	3.85	3.50	2.96	3.78	3.97	3.64	3.78	3.76	4.21	46.22

*Interpolated.

WALLINGFORD, CONN. Elevation, 130 feet.
Record 1856 to 1915; 1919 to 1935 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1919†	3.20*	3.30*	2.34	3.85	7.29	2.20	5.45	6.21	6.82	3.66	5.15	3.06	52.33
1920†	3.07	3.36	5.16	6.56	4.10	6.63	6.01	3.22	7.07	1.15	6.42	7.83	60.59
1921†	3.61	3.48	3.61	5.39	3.40	3.75	5.45	3.22	3.38	1.68	5.97	3.44	46.38
1922†	1.67	2.40	6.43	1.51	5.90	7.27	4.25	2.64	2.18	2.77	0.47	3.39	40.88
1923†	8.40	2.30	4.00	5.97	2.90	2.73	1.56	1.07	2.87	7.79	4.74	5.78	50.11
1924†	4.74	2.93	1.26	8.42	3.21	1.67	2.49	4.96	9.69	0.11	2.72	2.61	44.81
1925†	3.59	3.61	4.65	2.43	3.02	2.98	7.73	0.66	2.77	4.34	3.34	3.89	43.01
1926†	2.97	6.90	4.26	2.88	1.14	2.19	1.54	5.97	2.60	4.07	4.62	2.96	42.10
1927†	1.86	2.52	1.69	2.85	1.38	1.62	3.52	9.44	0.73	3.53	6.10	5.70	40.94
1928†	2.04	4.60	2.29	4.58	1.39	4.13	5.72	2.50	2.34	1.32	2.72	1.29	34.92
Max.	9.15	8.77	10.90	10.74*	8.06	11.48	16.69	11.68	11.90	13.29	9.48	8.60	63.12
Year	1891	1886	1876	1901	1893	1903	1897	1856	1882	1869	1898	1902	1889
Min.	1.36	0.65	0.12	1.14	0.25	0.27*	1.10	0.66	0.36	0.11	0.47	1.17	34.00*
Year	1876	1901	1915	1892	1887	1898	1907	1925	1914	1924	1922	1861	1864
1929	3.27	3.36	3.46	5.94	3.04	1.37	1.46	4.81	0.89	4.38	2.04	2.22	36.24
1930	2.10	2.57	3.62	1.29	3.96	4.47	1.55	2.39	0.50	2.50	5.11	1.82	31.88
1931	3.25	1.77	5.64	3.27	6.76	3.70	2.66	3.85	3.52	2.05	0.60	3.24	40.31
1932	4.47	4.15	5.22	2.30	1.07	2.88	2.12	4.19	3.55	5.00	7.20	2.52	44.67
1933	2.11	2.85	5.82	5.25	2.46	2.40	2.86	6.43	5.81	5.23	2.15	4.07	47.44
1934	4.30	1.12	7.13	4.54	6.14	3.81	4.36	2.15	9.72	2.81	3.02	6.88	55.98
1935	3.50	3.30	2.60	3.31	2.42	5.76	4.31	1.10	4.88	0.53	5.63	0.74	38.08
Av. 75 yrs.	4.22	4.15	4.47	3.79	3.76	3.41	4.01	4.27	3.66	3.79	3.99	4.05	47.57

†Record for 1919 to 1928 found since previous publication.
*Interpolated.

WATERBURY, CONN. Elevation, 400 feet.
Record January 1887 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.06	10.00	7.87	11.51	8.08	11.25	18.10	9.48	9.82	8.83	8.74	9.82	66.58
Year	1891	1920	1912	1901	1901	1903	1897	1898	1907	1913	1889	1901	1901
Min.	1.02	0.43	0.17	0.95	0.13	0.54	1.36	1.03	0.29	0.20	0.93	1.74	37.63
Year	1928	1919	1915	1892	1887	1894	1913	1899	1914	1924	1890	1892	1918
1929	4.34	3.75	3.62	6.36	4.43	1.74	1.39	2.72	1.87	3.94	2.49	2.78	39.43
1930	2.37	2.36	3.55	1.61	3.28	4.48	1.57	2.09	0.90	1.95	4.37	2.82	31.35
1931	2.34	2.10	4.75	2.92	3.84	3.43	1.69	3.23	1.24	2.04	1.03	2.60	31.21
1932	4.03	2.34	4.86	1.88	2.42	1.93	3.18	4.85	2.99	5.55	8.53	1.82	44.38
1933	1.92	3.31	5.43	5.00	2.20	3.60	1.59	6.56	5.73	2.57	0.78	3.05	41.74
1934	3.01	3.20	3.05	5.81	6.56	3.55	4.41	3.67	12.90	2.36	3.86	3.21	55.59
1935	4.20	2.55	1.90	2.63	1.98	5.47	5.20	0.90	3.96	0.54	3.23	0.88	33.44
1936	6.33	2.54	3.86	3.79	2.92	3.93	1.74	3.62	4.10	4.15	1.07	7.18	50.23
1937	5.88	2.56	2.87	4.62	4.47	5.28	2.85	7.54	3.27	5.80	6.39	2.17	53.70
1938	6.37	2.25	2.09	3.28	3.87	5.59	9.65	5.28	11.52	1.70	3.51	4.05	59.16
Av. 52 yrs.	3.97	3.79	4.08	3.69	3.80	3.53	4.41	4.34	3.90	3.69	3.52	3.85	46.57
1939	3.28	4.26	4.39	4.95	1.07	3.05	1.90	7.76	3.03	5.16	1.36	2.54	42.75
1940	3.86	4.03	5.22	6.13	6.12	4.62	3.49	2.68	3.24	2.02	5.57	2.46	48.94
1941	3.71	3.29	2.24	0.86	1.96	4.39	5.46	4.03	0.44	3.09	3.18	4.31	36.96

WATERBURY, CONN. (Waterbury Water Works). Elevation, 333 feet.
Record January 1924 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1924	5.31	2.32	1.67	6.21	5.34	2.61	1.77	4.98	4.95	0.16	2.88	2.19	40.39
1925	3.45	3.57	4.27	1.75	2.43	2.58	6.17	2.17	3.52	3.40	3.61	2.44	39.36
1926	2.20	5.70	2.82	2.80	1.52	1.45	4.36	4.05	2.64	3.63	6.09	4.19	41.45
1927	3.28	3.48	1.76	1.95	5.63	2.43	4.60	4.21	1.44	5.17	7.66	5.26	46.87
1928	2.60	4.09	2.93	4.30	2.01	5.25	5.89	5.05	3.42	1.25	2.15	1.12	40.06
1929	4.49	3.91	3.71	6.17	4.02	1.73	0.95	5.49	1.85	4.48	2.50	3.75	43.05
1930	2.52	2.41	4.23	2.75	3.55	4.55	2.12	3.55	0.94	2.02	4.66	2.53	35.83
1931	2.53	2.09	4.81	2.84	5.00	3.98	1.49	3.32	1.35	2.24	1.11	2.92	33.68
1932	4.86	2.27	5.48	1.95	2.58	1.98	3.10	4.99	3.11	5.89	8.26	2.15	46.62
1933	1.84	3.56	5.50	4.87	2.21	3.52	1.79	6.01	5.59	2.39	0.87	3.75	41.90
1934	3.79	4.50	3.93	4.78	6.30	3.13	4.15	3.44	12.94	2.32	3.73	3.48	56.49
1935	4.30	2.98	1.91	2.69	2.70	4.98	5.21	0.98	4.29	0.60	3.24	0.78	34.66
1936	7.75	2.41	8.50	3.59	2.52	3.93	1.73	3.39	4.13	3.81	1.08	7.58	50.42
1937	6.26	2.25	3.22	4.70	4.67	5.93	2.61	7.64	3.24	5.76	6.46	2.19	54.93
1938	6.22	2.16	1.94	3.12	3.59	6.04	9.14	5.29	11.34	1.58	4.35	4.21	58.98
Av. 15 yrs.	4.09	3.18	3.78	3.63	3.60	3.61	3.67	4.30	4.32	2.98	3.91	3.24	44.31
1939	3.34	4.65	4.22	4.28	0.94	3.16	1.62	7.36	2.88	4.81	1.53	2.89	41.68
1940	3.02	2.95	5.34	5.73	5.95	4.70	3.57	2.39	3.51	1.94	5.36	2.62	47.08
1941	2.52	4.75	2.58	1.07	1.73	4.44	5.39	4.33	0.29	3.09	3.21	4.70	38.10

WEST HARTFORD, CONN. (West Hartford Reservoir, Hartford Water Works).
Elevation, 275 feet.
Record January 1868 to December 1940 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.48	8.28	9.38	11.17	9.10	10.81	15.14	10.27	10.88	13.33	8.29	9.34	56.95
Year	1891	1900	1877	1901	1868	1903	1897	1885	1882	1869	1889	1901	1920
Max.	1.00	0.50	0.17	0.73	0.20	0.15	0.66	0.25	0.25	0.18	0.74	0.67	33.64
Year	1916	1901	1915	1896	1887	1873	1924	1876	1881	1924	1902	1877	1883
1929	4.41	4.32	3.21	7.32	4.56	1.70	1.16	2.59	1.96	4.99	2.62	3.73	42.57
1930	2.39	1.95	4.23	1.97	4.29	4.84	1.80	2.91	1.61	2.63	3.97	1.52	34.11
1931	3.12	1.49	4.22	3.06	5.67	4.34	2.58	4.26	1.30	1.94	1.05	2.73	35.76
1932	4.63	1.64	4.75	1.87	2.24	3.07	3.93	6.91	4.04	6.59	8.30	1.78	49.75
1933	1.53	3.43	5.15	3.90	1.04	3.11	2.34	5.42	4.72	2.02	0.73	3.07	36.46
1934	3.87	1.97	2.49	5.86	4.80	3.89	2.25	3.68	10.39	2.24	2.33	3.66	47.43
1935	3.21	2.48	1.73	2.14	1.36	3.02	4.88	0.96	4.22	0.38	3.62	0.90	28.90
1936	6.32	2.23	6.91	3.50	2.48	3.37	2.85	4.36	3.12	4.22	1.10	6.77	47.23
1937	5.79	2.71	3.08	4.39	4.05	6.16	3.68	6.38	3.85	5.19	6.01	2.00	53.29
1938	5.14	2.42	1.63	3.36	4.58	5.40	9.12	2.75	11.45	2.07	2.25	4.17	54.34
Av. 71 yrs.	3.52	3.27	3.77	3.41	3.59	3.40	4.05	4.34	3.74	3.69	3.60	3.33	43.71
1939	3.04	3.30	4.47	4.45	1.36	2.43	2.53	4.51	2.49	3.48	2.88	3.22	38.16
1940	4.31	3.00	5.17	5.94	4.05	6.43	3.92	1.83	2.12	2.80	5.88	2.68	48.13

WEST HARTFORD (Reservoir No. 6, Hartford Water Works).
Record January 1925 to December 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1925	3.43	3.49	4.01	2.06	2.55	4.72	6.50	1.15	2.81	4.22	2.72	2.81	40.47
1926	2.57	3.35	3.09	3.05	2.28	2.11	2.48	3.74	2.54	4.34	6.26	2.48	38.29
1927	1.92	2.70	1.73	2.03	5.57	2.28	6.55	5.28	2.00	5.60	6.98	4.63	47.27
1928	2.41	4.00	2.62	3.35	2.04	4.50	5.36	4.84	3.50	1.18	1.76	0.79	36.35
1929	4.38	3.56	2.86	6.42	3.95	2.27	1.13	1.96	1.99	4.89	2.29	3.70	39.40
1930	2.05	1.71	4.51	1.91	3.97	4.75	2.81	2.81	1.99	2.24	3.32	1.10	33.17
1931	2.89	1.15	4.39	2.93	6.68	4.25	2.74	3.12	1.22	1.84	1.12	2.66	34.99
1932	4.60	1.22	4.52	1.82	2.19	4.11	4.57	5.89	3.58	6.25	8.07	1.38	48.20
1933	1.39	2.85	4.62	3.34	1.44	2.02	2.35	5.10	5.20	2.13	0.71	2.45	33.60
1934	3.59	1.46	2.16	5.83	4.86	3.92	2.20	3.43	11.04	2.11	2.38	3.90	46.88
Av. 10 yrs.	2.92	2.55	3.45	3.28	3.55	3.49	3.67	3.73	3.59	3.48	3.56	2.59	39.86

WINDSOR, CONN. Elevation, 47 feet.
Record January 1894 to March 1898 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1894	2.18	3.76	1.75	1.66	3.82	1.10	1.80	4.23	4.68	4.85	4.12	4.54	38.49
1895	4.68	1.10	2.76	2.95	1.62	1.23	5.29	6.05	4.11	5.22	5.38	2.83	43.22
1896	0.98	4.97	6.31	0.91	2.18	4.19	3.18	3.53	5.49	3.43	2.20	2.31	39.68
1897	4.48	2.95	3.48	2.28	5.47	4.53	15.29	8.19	1.56	0.54	6.90	6.26	61.93
1898	5.46	6.05	2.63	———	———	———	———	———	———	———	———	———	———

WOLCOTT, CONN. (Wolcott Reservoir, New Britain Water Works). Elevation, 768 feet.
Record January 1930 to December 1940 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1930	3.09	2.65	4.35	2.61	5.04	5.11	2.12	2.51	1.23	2.65	5.49	2.89	39.74
1931	3.34	2.55	5.55	3.53	5.64	6.73	2.64	3.54	1.23	2.08	1.41	3.47	41.71
1932	5.74	2.53	4.99	3.02	3.99	2.68	3.31	6.12	3.22	7.02	8.74	2.08	53.35
1933	2.07	3.29	6.09	5.63	1.59	3.61	3.22	6.14	5.34	2.52	0.82	3.49	43.81
1934	4.20	2.43	2.81	7.17	7.18	4.29	7.17	2.70	13.23	2.51	3.08	4.42	61.19
1935	4.22	3.69	2.22	3.06	2.07	5.47	6.02	0.81	4.73	0.64	3.77	1.07	37.77
1936	6.85	2.93	8.01	3.64	3.64	4.95	2.98	3.29	4.04	4.58	1.32	7.92	54.15
1937	6.62	3.04	3.82	4.67	5.09	5.41	3.08	7.23	3.81	5.51	5.92	2.71	56.91
1938	5.96	2.96	2.17	3.77	4.94	6.24	9.10	3.37	12.71	2.33	3.73	4.98	62.26
Av. 9 yrs.	4.68	2.90	4.44	4.12	4.35	4.94	4.40	3.97	5.50	3.32	3.81	3.67	50.10
1939	3.68	4.49	5.93	5.11	1.85	2.48	3.22	6.85	4.09	3.64	2.99	3.12	47.45
1940	4.81	3.23	6.36	6.64	4.49	6.73	2.59	2.87	2.35	2.34	5.40	3.16	50.97

WOODBRIDGE, CONN. (Lake Dawson). Elevation, 170 feet.
Record November 1913 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1913	———	———	———	———	———	———	———	———	———	———	2.77	4.09	———
1914	5.55	2.99*	3.53	4.29	2.70	2.52	4.93	2.31	0.40	4.00	2.79	3.89	39.90
1915	7.28	4.96	0.22	1.09	2.63	3.11	3.48	6.74	1.86	3.42	1.94	5.68	42.41
1916	1.59	3.17	3.83*	2.27	4.88	4.78	5.33	1.13	3.86	2.45	2.93	3.03	39.25
1917	3.11	1.79	5.63	2.93	3.68	4.01	4.40	3.74	2.15	5.78	1.54	2.30	41.06
1918	3.75	2.91	1.52	4.37	3.38	4.51	5.09	2.22	4.18	1.57	3.12	3.54	40.16
1919	3.08	3.27	5.90	3.36	6.61	1.61	3.25	5.95	5.86	3.39	4.50	2.56	49.34
1920	2.23	2.05	4.25	5.23	4.01	6.05	4.70	2.37	3.06	3.83	5.84	6.63	50.25
1921	3.02	2.93	3.06	5.63	3.79	3.12	5.62	2.46	2.84	1.31	4.28	2.64	40.70
1922	1.30	1.80	4.09	2.78	5.48	7.58	5.98	2.97	1.60	2.58	1.21	2.60	39.97
1923	6.12	1.06	3.31	4.12	2.18	3.80	1.38	1.26	1.79	6.18	4.74	6.73	42.67
1924	4.41	2.11	0.79	6.57	6.17	1.62	0.78	5.52	3.34	0.75	2.46	2.52	37.04
1925	2.03	4.45	4.64	1.74	4.01	4.44	5.83	4.08	3.89	4.86	3.71	2.59	46.27
1926	1.87	3.62	2.81	2.69	1.55	1.92	1.94	7.42	3.34	4.55	6.35	2.82	40.88
1927	2.30	2.06	1.68	2.91	4.71	3.72	4.69	8.99	1.68	4.96	6.20	4.52	48.42
1928	3.06	4.55	2.17	4.46	2.07	6.24	6.65	3.89	4.29	0.96	1.36	3.07	42.77
1929	3.73	4.22	3.26	6.41	3.77	1.91	2.19	5.53	1.64	4.02	2.16	3.19	42.03
1930	2.61	2.55	3.83	2.59	4.64	3.58	1.79	2.00	0.85	2.03	5.44	2.38	34.29
1931	2.91	1.71	4.38	3.99	5.42	4.85	3.90	3.97	3.86	2.26	0.69	3.46	41.40
1932	4.68	2.40	4.82	2.45	1.96	2.56	2.96	4.09	3.95	5.56	6.50	1.77	43.70
1933	1.97	3.45	5.81	5.87	1.56	2.93	4.23	7.43	4.99	3.51	0.65	4.12	46.52
1934	3.44	2.80	2.38	7.34	5.50	4.90	2.27	2.09	9.04	2.47	2.84	4.16	49.23
1935	5.16	2.94	2.66	1.78	1.11	5.95	3.39	1.21	4.04	0.73	4.32	1.18	34.47
1936	7.61	2.40	7.36	4.44	2.30	7.11	1.27	2.89	3.01	5.43	1.14	7.96	52.92
1937	6.16	3.56	3.58	6.08	3.54	3.48	2.65	6.60	3.37	6.11	7.28	2.45	54.86
1938	3.92	2.86	2.40	2.73	4.62	7.29	7.12	3.23	11.89	2.56	3.64	3.83	56.09
Av. 25 yrs.	3.72	2.90	3.52	3.93	3.69	4.14	3.83	4.00	3.63	3.41	3.51	3.58	43.86
1939	4.03	5.64	6.65	5.06	0.71	2.63	3.32	6.47	2.47	3.99	2.71	3.90	47.58
1940	3.18	2.89	5.70	7.01	4.75	7.32	4.75	2.90	3.24	2.20	4.93	2.50	51.37
1941	2.12	3.11	2.31	1.45	3.44	4.36	4.65	4.24	1.01	2.55	4.31	4.58	38.13

Rainfall Records for Eastern New York

ALBANY, N. Y. Elevation, 97 feet.
Record January 1826 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.30	5.19	7.37	7.00	8.47	8.70	9.37	10.59	8.91	13.48	7.29	6.35	56.78
Year	1836	1870	1843	1857	1833	1862	1871	1871	1890	1869	1830	1915	1871
Min.	0.08	0.36	0.09	0.56	0.15	0.80	0.70	0.53	0.47	0.09	0.40	0.24	26.39
Year	1860	1856	1915	1892	1903	1864	1849	1876	1914	1924	1908	1828	1913
1929	2.21	3.68	3.10	6.31	2.34	2.65	0.63	1.02	3.45	2.32	1.82	2.16	31.69
1930	1.77	1.04	2.76	1.53	3.02	3.21	4.33	2.20	1.96	1.13	1.90	0.69	25.54
1931	2.26	2.07	1.48	2.31	5.92	4.00	5.76	2.34	1.91	1.37	1.18	2.62	33.22
1932	2.83	1.80	2.73	2.05	1.69	2.24	4.66	3.30	1.73	4.79	5.41	1.01	34.24
1933	1.49	2.52	4.02	3.92	2.41	2.21	1.83	5.95	6.28	3.14	1.02	3.39	38.18
1934	2.36	2.68	3.13	2.82	2.56	5.75	2.98	2.76	5.82	1.43	2.26	1.93	36.48
1935	4.10	2.26	1.60	2.48	2.35	5.20	4.96	1.47	2.90	1.42	4.15	0.85	33.74
1936	4.59	1.92	5.39	3.12	4.20	1.86	1.94	6.54	1.34	3.99	2.16	2.90	39.95
1937	2.61	2.08	2.40	1.89	4.13	5.31	4.35	4.16	5.08	2.61	1.83	2.05	38.50
1938	3.49	1.60	1.63	2.59	3.42	3.52	5.11	3.18	8.76	1.18	2.36	3.33	40.17
Av. 113 yrs.	2.54	2.40	2.73	2.70	3.33	3.84	3.88	3.73	3.34	3.17	2.91	2.55	37.12
1939	2.54	3.07	3.06	3.48	1.11	3.04	2.86	1.96	3.61	3.22	1.69	1.53	31.17
1940	1.13	2.83	4.53	3.93	3.68	2.83	4.23	1.78	4.31	0.89	3.13	2.64	35.91
1941	1.98	2.33	1.85	0.72	1.19	1.56	4.45	3.60	1.60	1.80	1.44	2.06	24.58

BALLSTON, LAKE, N. Y. Elevation, 300 ft.
Record 1904 to 1931 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.29	5.24	5.52	5.71	5.20	8.48	9.16	7.48	6.70	5.90	6.93	5.16	45.54
Year	1923	1910	1913	1924	1919	1928	1915	1915	1907	1917	1927	1915	1915
Min.	0.53	0.94	0.04	1.47	1.26	0.91	1.33	1.54	0.94	0.11	0.70	0.68	31.36
Year	1921	1907	1915	1917	1926	1913	1911	1907	1914	1924	1904	1928	1908
Av. 22 yrs.	2.48	2.44	2.93	3.05	3.07	3.94	3.80	3.48	3.62	2.99	2.68	2.46	36.94
1929	2.63	3.14	2.66	6.98	3.75	4.42	0.95	1.80	1.97	2.45	2.55	2.73	36.03
1930	2.39	1.18	3.28	1.53	3.36	3.15	2.29	0.82	2.00	0.69	2.82	0.69	24.20
1931	1.69	1.40	2.02	2.15	3.84	4.23	8.87	2.58	3.91	1.55	——	——	——

BEDFORD HILLS, N. Y. Elevation, 450 feet.
Record January 1891 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.50*	9.51	7.86	10.65	9.83	10.46	12.40	15.36	12.50	10.97	8.49	8.28	66.98
Year	1891	1896	1912	1901	1897	1903	1922	1901	1907	1913	1892	1901	1901
Min.	1.10	0.98	0.40	0.91	0.24	1.01	1.32	0.89	0.25	0.23*	T	1.41	32.91
Year	1916	1901	1910	1896	1903	1901	1894	1899	1914	1924	1917	1892	1917
1929	3.04	3.87	2.13	5.76	3.88	1.63	2.94	4.62	2.06	3.62	2.53	3.84	39.92
1930	2.68	2.50	2.83	1.10	4.21	5.69*	3.14	4.07	2.01	1.32	1.71	1.55	32.81
1931	1.34	2.41	3.09	2.47	6.06	4.05	3.37	2.91	1.57	2.53	0.96	3.19	33.95
1932	3.00	2.59	4.57	3.05	2.17	3.89	3.51	2.30	2.48	4.98	6.11	2.78	41.43
1933	2.19	3.17	4.30	6.86	2.71	2.86	2.07	12.10	4.50	2.75	0.48	3.00	46.99
1934	3.54	3.34	4.15	4.39	7.53	5.22	4.12	2.18	11.86	3.01	3.56	3.56	56.46
1935	3.88	2.40	2.55	1.63	1.40	6.31	5.58	1.40	3.33	1.00	3.81	0.49	33.73
1936	6.71	3.27	7.41	4.50	2.83	6.60	4.40	4.04	4.16	3.58	0.86	5.97	54.33
1937	6.51	2.69	2.64	4.97	4.01	5.32	5.66	9.64	4.91	5.69	5.41	2.13	59.58
1938	5.57	1.97	1.68	3.06	3.61	8.01	10.13	2.54	11.96	2.07	2.80	4.26	57.66
Av. 48 yrs.	3.64	3.32	3.52	3.54	3.95	3.94	4.67	4.66	4.11	3.53	3.33	3.46	45.67
1939	4.03	5.66	3.48	5.34	1.80	4.15	2.14	2.82	2.74	4.45	2.13	3.21	41.95
1940	3.68	2.40	6.65	6.61	7.86	5.75	2.80	4.52	2.77	3.50	3.97	3.52	54.03
1941	3.36	2.93	2.69	2.45	2.56	4.55	7.99	3.35	0.68	2.04	3.09	4.25	39.94

*Interpolated.

BOYD'S CORNER RESERVOIR, N. Y. (Croton Watershed, New York Water Supply). Elevation, 600 feet.
Record January 1868 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.76	8.41	8.30	8.48	8.81	11.81	13.55	10.33	14.41	9.61	8.16	9.53	63.41
Year	1891	1896	1896 & 1913	1901	1893	1903	1887	1875	1882	1913	1877	1901	1888
Min.	1.09	0.80	0.19	1.08	0.32	0.71	1.64	0.48	0.33	0.15	0.66	1.15	35.27
Year	1896	1877	1915	1892	1887	1873	1907	1899	1914	1924	1917	1892 & 1928	1917
1929	4.24	3.19	3.03	7.28	4.35	2.93	2.53	1.56	2.89	5.02	2.73	3.99	43.74
1930	2.47	1.96	2.70	3.12	3.02	5.08	3.04	3.90	1.36	1.65	5.15	2.06	35.51
1931	2.32	2.44	3.22	5.31	6.78	11.33	4.80	3.08	3.14	2.05	1.19	2.78	48.44
1932	4.25	2.28	4.47	2.34	3.72	3.28	4.02	4.83	1.60	6.52	9.13	1.77	48.21
1933	1.90	3.40	4.54	5.50	2.77	2.02	2.74	11.45	5.90	3.11	1.15	3.33	47.81
1934	3.79	3.78	3.77	3.90	6.15	3.44	2.92	3.32	10.55	2.90	4.15	4.02	52.69
1935	4.54	2.68	2.40	1.56	2.59	5.17	2.99	1.18	3.20	1.55	3.18	1.18	32.22
1936	6.07	4.47	6.79	2.90	3.21	5.83	3.77	4.54	4.17	3.22	1.45	6.19	52.61
1937	6.82	2.64	2.75	3.74	5.15	5.82	2.63	6.70	4.23	6.82	5.00	2.84	55.14
1938	5.29	2.48	1.99	2.83	3.92	6.71	12.22	5.57	11.73	2.48	3.56	4.44	63.22
Av. 71 yrs.	4.00	3.83	4.12	3.76	4.01	3.84	4.67	4.71	4.29	4.02	3.79	3.93	48.97
1939	3.42	4.65	4.21	5.73	1.09	5.54	1.33	4.17	3.52	5.03	1.79	2.35	42.83
1940	3.06	2.16	5.75	5.69	5.72	3.72	3.07	4.01	3.53	2.45	5.31	3.46	47.93
1941	2.29	2.74	1.85	1.10	2.13	4.28	6.93	4.11	0.69	2.45	3.34	5.01	36.92

BRIDGEHAMPTON (LONG ISLAND), N. Y. Elevation, 60 feet.
Record August 1930 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jui.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1930	———	———	———	———	———	———	———	3.00	0.34	3.75	5.02	4.06	———
1931	3.37	2.01	6.03	3.79	3.89	2.96	2.21	6.28	1.71	3.61	0.77	3.14	39.77
1932	6.57	2.38	4.84	1.96	3.24	3.54	2.14	3.57	10.09	5.52	5.41	3.25	52.51
1933	2.65	4.05	5.85	5.50	4.97	1.92	2.73	10.13	9.92	4.17	3.05	3.66	58.60
1934	2.66	6.60	3.00	5.07	6.93	2.87	0.73	2.18	3.12	3.96	2.94	5.08	45.14
1935	5.01	3.28	2.47	3.11	1.40	3.67	4.58	0.73	6.08	1.56	4.74	1.78	38.41
1936	6.94	3.66	6.21	2.90	1.85	5.48	1.11	1.55	4.85	2.27	1.51	9.81	48.14
1937	4.72	2.20	3.84	4.39	2.17	4.85	2.41	3.71	3.39	3.84	5.27	2.64	43.43
1938	3.56	2.05	2.65	3.10	4.03	6.53	4.76	3.38	9.33	2.87	3.63	2.96	48.85
Av. 8 yrs.	4.43	3.28	4.36	3.73	3.56	3.98	2.58	3.94	6.06	3.48	3.42	4.04	46.86
1939	4.61	6.76	6.37	4.84	1.07	2.74	1.96	5.74	0.96	5.87	2.49	2.32	45.73
1940	2.53	3.71	4.30	5.01	4.50	3.58	2.59	2.17	2.21	2.11	8.18	2.60	43.49
1941	4.14	1.65	3.28	1.71	1.46	6.90	5.68	2.87	0.08	2.82	3.65	3.27	37.51

CAIRO, N. Y. Elevation, 340 feet.
Record January 1929 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1929	2.71	3.34	2.35	7.83	3.75	6.46	0.81	1.19	3.68	4.90	2.13	2.14	41.29
1930	1.59	0.68	4.67	2.34	3.87	4.96	1.68	2.15	1.83	1.19	3.17	0.81	28.94
1931	2.48	2.97	3.25	3.91	6.17	4.33	4.65	3.48	2.77	1.05	1.27	1.93	38.26
1932	3.29	2.29	3.88	2.06	2.42	4.69	2.79	2.83	0.97	10.07	7.18	0.67	43.14
1933	0.70	1.60	4.82	5.83	1.95	0.90	3.00	8.19	5.04	2.49	0.58	3.02	38.12
1934	2.40	0.83	1.38	4.88	3.77	4.70	2.40	3.53	7.45	1.47	2.41	3.66	38.88
1935	2.02	1.81	1.34	2.61	1.44	4.68	8.02	0.88	2.59	2.66	2.99	0.37	31.41
1936	3.69	1.87	7.09	3.18	1.82	3.44	1.32	4.92	0.96	3.65	1.73	4.14	37.81
1937	3.24	3.51	1.92	3.86	4.94	5.96	4.26	4.76	5.40	4.05	5.84	1.76	49.50
1938	4.69	0.78	0.89	2.16	3.40	4.46	5.93	2.02	9.19	1.56	2.12	4.65	41.85
Av. 10 yrs.	2.68	1.97	3.16	3.87	3.35	4.46	3.49	3.39	3.99	3.31	2.94	2.31	38.92
1939	1.93	3.08	2.43	3.45	0.82	1.63	1.46	3.86	2.54	2.68	1.88	1.78	27.54
1940	2.16	3.77	5.40	4.04	4.97	1.54	2.70	1.58	3.08	0.54	3.58	1.96	35.32
1941	2.16	2.74	2.01	1.18	1.13	5.09	2.81	2.19	0.94	0.78	2.68	4.09	27.80

CARMEL, N. Y. Elevation, 500 feet.
Record January 1889 to December 1892; January 1896 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.71	8.39	7.89	7.93	7.51	12.70	16.64	12.87	10.27	9.93	8.74	9.46	64.86
Year	1891	1900	1901	1901	1927	1903	1897	1898	1907	1913	1889	1901	1901
Min.	1.10	0.81	0.13	0.95	0.97	0.88	1.65	0.53	0.25	0.19	0.70	0.79	31.78
Year	1896	1901	1915	1892	1905	1913	1913	1899	1914	1924	1917	1892	1917
1929	3.72	2.92	2.95	6.86	4.10	2.91	2.49	2.11	2.73	4.31	2.30	3.70	41.10
1930	2.69	2.05	2.84	2.64	2.55	6.37	2.72	3.76	1.63	1.63	5.19	2.30	36.37
1931	1.95	2.33	3.28	4.86	6.38	8.35	4.02	4.85	2.08	2.21	0.86	2.84	44.01
1932	4.20	2.25	4.36	2.06	3.61	3.24	3.29	4.28	2.56	5.65	9.08	1.95	46.53
1933	1.92	3.73	4.49	5.71	2.85	2.03	3.15	10.55	6.34	3.17	1.16	3.08	48.18
1934	3.58	3.57	3.56	3.34	6.11	3.83	4.00	3.27	11.10	3.14	3.83	3.12	52.45
1935	3.71	2.67	2.36	1.62	2.04	4.73	3.15	1.08	3.70	1.36	3.13	0.85	30.40
1936	6.04	3.34	6.25	3.57	2.82	5.93	4.20	4.19	4.17	2.36	1.19	6.15	50.21
1937	6.61	2.20	2.62	3.51	5.83	5.27	2.49	9.19	5.12	6.44	3.77	2.49	55.54
1938	4.76	2.29	1.72	2.78	4.00	5.81	11.54	5.67	12.35	2.60	3.10	3.66	60.28
Av. 47 yrs.	3.78	3.50	4.02	3.69	3.95	3.99	4.92	5.08	4.40	3.76	3.58	3.58	48.25
1939	3.13	4.42	3.74	5.20	0.79	4.07	2.14	3.68	3.41	5.11	2.27	2.29	40.25
1940	2.90	1.71	5.49	5.24	5.06	4.76	2.88	3.47	2.57	2.35	4.87	2.98	44.28
1941	2.29	2.82	1.59	1.11	2.32	4.18	7.15	2.83	0.89	3.27	3.08	4.36	35.89

CHATHAM, N. Y. Elevation, 470 feet.
Record January 1901 to June 1921 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	4.67	5.11	6.84	5.90	6.81	10.86	8.47	7.59	7.91	6.87	4.82	7.41	51.04
Year	1910	1915	1919	1914	1901	1903	1902	1901	1918	1903	1919	1915	1903
Min.	1.01	0.85	0.12	1.51	0.94	1.12	1.53	0.67	0.37	0.87	0.40	1.10	26.50
Year	1921	1901	1915	1911	1905	1912	1904	1907	1914	1909	1917	1914	1908
Av. 20 yrs.	2.38	2.46	3.09	3.15	3.11	4.08	3.77	3.93	3.57	3.37	2.21	2.77	37.89

CHAZY, N. Y. Elevation, 200 feet.
Record 1891 to June 1933 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	3.66	2.53	4.73	4.04*	6.38	10.42	9.39	8.98	7.71	6.16	5.98	3.69	46.79
Year	1894	1903	1913	1914	1912	1892	1905	1892	1918	1918	1927	1894	1892
Min.	0.13	0.05	T	0.20	0.07	0.65	1.00	0.62	T	0.03	0.22	0.23	19.39
Year	1921	1914	1924	1906	1903	1909	1909	1923	1915	1924	1913	1912	1908
Av. 29 yrs.	1.43	1.35	1.39	1.47	2.36	3.40	3.73	3.23	2.90	2.58	1.78	1.39	27.01
1929	1.36	1.22	1.03	2.68	2.52	3.65	1.48	1.21	1.77	1.94	2.47	2.05	23.38
1930	1.55	0.20	2.00	T	3.39	3.34	4.59	1.57	0.80	0.57	0.63	0.49	19.13
1931	2.40	1.30	1.05	1.02	2.07	2.45	5.66	1.87	7.50	2.51	0.54	0.56	28.93
1932	1.41	0.45	2.88	2.39	1.83	2.01	4.83	2.56	0.68	3.44	3.88	0.94	27.30
1933	0.53	1.07	1.90	4.19	3.22	0.93	———	———	———	———	———	———	———

*Interpolated.

COOPERSTOWN, N. Y. Elevation, 1,250 feet.
Record 1854 to 1927 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.54	6.68	6.04	7.12	8.84	9.96	9.17	9.75	8.07	8.34	6.02	6.02	58.11
Year	1891	1910	1899	1854	1890	1917	1902	1898	1907	1917	1927	1881	1890
Min.	0.32	0.60	0.55	0.92	0.17	0.95	0.89	0.63	1.17	0.20	1.18	0.97	29.90
Year	1860	1856	1885	1863	1903	1870	1868	1876	1871	1924	1904	1877	1864
Av. 69 yrs.	2.80	2.59	2.84	2.80	3.65	4.35	4.60	4.34	3.64	3.44	3.03	2.85	40.93

CORTLAND, N. Y. Elevation, 1,129 feet.
Record 1851 to 1862; 1893 to 1928 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.62	5.77	5.13	6.78	6.31	15.04	10.12	9.44	6.86	11.47	7.17	6.41	55.25
Year	1915	1851	1903	1857	1894	1922	1902	1898	1924	1903	1900	1901	1857
Min.	0.75	0.69	0.59	0.56	0.30	1.45	1.18	0.37	1.02	0.31	0.84	0.33	29.40
Year	1928	1899	1915	1899	1903	1893	1916	1907	1908	1924	1904	1928	1899
Av. 48 yrs.	2.55	2.29	2.58	2.92	3.66	4.30	4.43	3.78	3.56	3.56	3.02	2.76	39.41

CROTON WATERSHED, N. Y.
Record January 1868 to December 1928; January to December 1931 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.12	7.66	7.94	8.19	8.79	11.26	12.82	10.91	14.93	9.65	8.48	8.82	63.76
Year	1891	1900	1896	1901	1868	1903	1897	1898	1882	1913	1889	1901	1901
Min.	1.09	0.84	0.31	1.09	0.32	0.43	2.16	0.72	0.32	0.20	0.90	1.04	36.28
Year	1896	1901	1915	1892	1887	1873	1869	1899	1914	1924	1902	1892	1917
Av. 61 yrs.	3.91	3.92	4.09	3.62	3.76	3.60	4.75	4.87	4.08	3.91	3.76	3.78	48.05
1931	2.11	2.51	3.77	4.40	7.07	6.56	3.81	4.21	2.60	2.36	1.15	2.84	43.39

CUTCHOGUE (LONG ISLAND), N. Y. Elevation, 32 feet.
Record January 1899 to December 1938 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	10.21	7.16	8.98	8.56	7.31	7.62	8.49	10.02	10.63	8.60	8.28	10.39	56.04
Year	1915	1909	1912	1901	1901	1920	1916	1911	1918	1913	1911	1901	1901
Min.	1.69	0.50	0.40	1.63	0.84	0.29	0.57	0.75	0.33	0.46	0.16	1.43	34.70
Year	1926	1901	1915	1900	1902	1912	1924	1899	1914	1924	1917	1899	1908
1929	4.13	4.06	4.61	6.72	5.30	1.39	2.81	5.14	3.84	2.76	2.88	4.27	47.91
1930	3.26	3.82	2.43	2.52	4.17	3.99	3.09	2.00	0.96	4.16	6.29	4.96	41.65
1931	3.21	2.31	6.96	3.72	3.31	3.15	3.18	5.80	1.09	3.32	1.09	3.13	40.27
1932	5.14	3.12	5.19	1.72	2.67	2.54	3.77	2.50	3.86	5.69	5.62	2.91	44.73
1933	3.00	3.77	5.34	3.87	3.62	1.46	4.28	9.59	9.69	3.21	1.78	3.58	53.19
1934	3.35	4.80	2.93	5.70	6.97	3.35	1.49	1.71	5.16	5.14	3.43	3.90	47.93
1935	4.99	3.50	2.45	2.98	1.63	3.74	3.46	0.75	5.35	1.36	3.99	1.63	35.83
1936	7.04	2.12	5.17	3.61	1.34	6.19	1.28	2.44	2.59	3.21	1.42	9.59	46.00
1937	5.02	2.28	3.63	4.63	2.57	4.83	1.35	5.10	3.11	4.25	5.02	2.90	44.69
1938	4.31	1.00	2.13	2.33	4.52	6.23	5.35	3.40	10.17	2.51	3.32	2.76	48.03
Av. 40 yrs.	4.11	3.64	4.22	3.96	3.36	3.46	3.43	4.01	3.77	3.51	3.35	4.34	45.16

DANNEMORA, N. Y. Elevation, 1,440 feet.
Record January 1906 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	4.95	7.01	4.97	5.96	6.48	7.72	8.98	4.64	8.07	7.44	8.34	6.65	52.25
Year	1922	1920	1919	1919	1908	1922	1924	1926	1918	1918	1927	1920	1918
Min.	0.47	0.31	0.00	0.35	0.58	1.42	1.01	0.47	T	0.72	1.21	1.44	21.31
Year	1906	1914	1915	1906	1921	1912	1922	1907	1915	1909	1907	1919	1915
1929	2.74	1.22	3.12	3.88	4.02	4.55	1.26	2.03	2.01	3.10	2.56	3.56	34.05
1930	2.64	0.80	4.49	1.93	5.08	3.96	3.95	2.23	2.43	1.21	1.87	1.53	32.12
1931	2.97	1.81	2.48	1.91	2.29	2.13	6.31	1.74	5.26	2.19	2.28	2.48	33.85
1932	2.90	1.62	2.64	1.88	2.42	3.03	5.34	3.37	1.07	5.04	4.03	2.55	35.89
1933	2.00	1.62	4.91	4.48	3.57	0.78	1.11	4.99	2.42	2.50	3.26	4.10	35.74
1934	3.04	2.03	1.56	3.60	1.33	4.14	2.53	0.46	3.58	1.71	1.78	2.08	27.84
1935	3.75	1.56	2.23	3.50	2.35	4.65	5.05	3.62	3.78	1.59	1.60	1.65	35.33
1936	3.55	2.50	3.70	3.95	3.32	2.98	3.56	2.23	2.90	4.61	2.75	2.25	38.30
1937	2.84	2.12	3.19	3.56	5.57	5.39	3.09	5.79	2.32	3.14	2.61	3.41	43.03
1938	2.85	2.76	3.43	4.00	4.30	4.15	3.38	3.57	6.15	1.19	1.68	3.29	40.75
Av. 33 yrs.	2.72	2.42	2.82	2.75	3.25	3.61	3.84	2.91	3.45	3.09	2.83	2.85	36.54
1939	4.32	4.96	2.62	4.22	3.34	4.87	2.42	3.25	2.87	2.07	1.41	3.63	39.98
1940	1.51	1.91	4.04	4.30	3.88	7.12	3.10	0.63	3.89	2.82	3.48	4.31	40.99
1941	2.08	2.17	3.15	0.42	1.79	1.39	2.68	2.79	0.51	3.43	2.00	1.94	24.35

EASTHAMPTON (LONG ISLAND), N. Y. Elevation, 16 feet.
Record 1827 to 1843; 1850 to 1852 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1827	4.43	4.00	2.33	2.64	7.90	2.49	3.21	2.58	3.10	4.73	7.91	1.85	47.17
1828	2.44	2.09	1.99	2.99	2.50	3.67	4.10	0.95	4.87	1.79	3.18	0.34	30.91
1829	6.33	4.26	4.28	2.02	4.98	1.87	1.88	2.39	2.79	4.32	5.84	1.60	42.56
1830	3.87	1.60	3.94	2.69	4.73	3.16	4.80	3.62	1.93	3.02	5.82	7.47	46.65
1831	1.67	1.77	1.25	6.81	4.64	3.00	3.14	1.67	5.40	4.85	3.02	1.27	38.49
1832	3.15	3.47	2.63	2.46	5.71	0.24	1.90	5.46	3.61	2.80	3.05	7.34	41.82
1833	2.71	1.63	0.50	1.56	3.35	5.42	1.48	1.56	2.77	7.51	3.38	4.42	36.29
1834	2.99	1.52	0.85	2.02	6.70	4.66	7.32	0.29	4.47	4.32	2.62	2.36	40.12
1835	2.45	1.63	4.22	5.69	1.79	1.68	1.39	2.93	0.86	2.34	2.79	2.78	30.55
1836	6.71	3.30	2.57	2.95	2.98	3.26	1.62	1.98	1.33	1.93	4.00	2.87	35.50
1837	2.10	3.90	7.62	1.60	5.09	3.04	3.91	2.26	0.90	0.99	1.53	2.29	35.23
1838	2.42	1.15	1.05	1.50	1.56	1.65	0.97	0.74	9.18	4.94	2.50	0.40	28.06
1839	1.24	3.11	1.44	4.87	2.46	2.98	2.86	9.00	4.69	5.13	1.61	7.00	46.39
1840	2.35	2.69	3.55	5.04	6.33	2.32	1.05	5.88	2.42	4.52	6.02	1.15	43.32
1841	4.57	0.96	3.40	7.24	1.71	2.47	3.74	5.68	1.57	4.47	3.84	3.97	43.62
1842	2.07	3.02	1.26	5.24	3.70	6.02	3.54	1.94	2.35	0.40	0.93	2.60	33.07
1843	——	0.83	0.50	4.00	2.35	3.95	——	6.20	3.18	5.15	0.50	2.80	——
1850	——	——	——	——	——	——	——	——	——	2.86	2.26	4.85	——
1851	2.02	——	——	——	——	——	——	——	0.94	3.69	3.36	1.52	——
1852	2.69	2.09	2.19	6.29	1.59	1.32	0.45	2.21	——	——	——	——	——

ESOPUS WATERSHED, N. Y.
Record January 1906 to December 1928; January to December 1931 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.61	6.97	7.70	10.18	9.23	12.16	8.59	9.01	11.59	8.67	9.15	7.08	59.13
Year	1910	1909	1913	1910	1908	1928	1915	1928	1924	1927	1927	1927	1927
Min.	1.64	1.66	0.21	2.16	1.06	1.01	1.90	1.17	0.56	0.08	0.57	0.86	39.91
Year	1916	1907	1915	1915	1911	1913	1913	1907	1914	1924	1908	1928	1914
Av. 23 yrs.	3.47	3.31	3.55	4.19	4.02	4.41	4.50	4.63	4.48	3.96	4.14	3.62	48.28
1931	3.06	2.53	3.33	4.94	6.80	4.95	5.71	4.54	2.67	1.68	1.60	2.85	44.66

FARMINGDALE (LONG ISLAND), N. Y. Elevation, 100 feet.
Record January 1917 to December 1918; January 1926 to June 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1917	2.13	1.60	7.49	2.85*	3.41*	2.43	4.31	3.49	2.34	4.80	0.31	2.52	37.68
1918	2.84	2.60	1.59	4.13	4.25	4.22	4.83	3.80*	9.35	2.52	2.20	4.24*	46.57
1926	3.02	5.13	3.12	2.78	2.75	2.26	6.26	5.62	3.48	4.72	5.37	4.57	49.08
1927	2.58	2.13	1.88	2.32	4.15	3.91	7.88	11.99	3.72	6.78	4.73	4.56	56.63
1928	1.78	4.93	2.98	5.06	2.40	6.98	5.97	4.12	4.48	1.76	2.25	2.24	44.95
1929	3.75	4.72	4.53	5.68	5.59	1.42	2.03	1.88	2.91	4.27	2.91	3.20	42.89
1930	2.78	4.03	1.75	2.25	3.35	3.65	3.34	5.22	1.75	4.26	4.35	2.68	39.41
1931	3.01	2.38*	4.45*	5.22	4.21	3.53	1.97	4.99	1.28	3.25	0.88	2.48	37.65
1932	4.66	2.36	6.30	2.37	3.48	4.73	1.65	2.60	3.85	4.82	6.81	1.76	45.39
1933	2.02	3.40	5.35	5.06	4.57	2.50	2.20	7.83	8.16	4.00	1.36	3.39	49.84
Av. 10 yrs.	2.86	3.33	3.95	3.77	3.82	3.56	4.04	5.15	4.13	4.12	3.12	3.16	45.01
1934	2.47	3.33	3.74	4.97	5.33	3.96	——	——	——	——	——	——	——

*Interpolated.

FLUSHING (LONG ISLAND), N. Y. Elevation, 60 feet.
Record January 1876 to December 1883; January 1916 to December 1938 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.51	5.27	10.19	6.31	5.42	6.95	10.10	9.29	11.71	8.66	4.95	6.33	55.30
Year	1923	1876	1876	1924	1918	1922	1880	1879	1882	1927	1877	1878	1927
Min.	1.29	1.89	1.47	1.43	0.95	1.52	0.53	0.81	0.65	0.25	0.52	0.65	30.98
Year	1876	1917	1927	1881	1877	1880	1924	1916	1881	1924	1917	1877	1916
1929	3.13	4.45	4.00	5.73	3.46	2.00	0.77	1.94	2.96	4.10	2.17	2.96	37.67
1930	2.16	3.32	1.89	2.54	3.16	3.23	4.72	3.80	1.45	1.86	6.08	2.64	36.85
1931	2.68	2.52	4.47	3.87	5.98	3.31	2.40	5.31	1.86	3.00	0.75	2.81	38.96
1932	4.12	2.78	5.67	2.63	3.01	4.51	1.15	2.09	1.77	4.37	6.80	2.73	41.63
1933	1.82	3.35	5.84	4.51	3.75	2.37	2.99	8.58	10.14	1.89	0.94	4.24	50.42
1934	3.85	3.74	3.85	3.56	5.67	3.13	4.22	2.43	15.06	2.52	2.17	2.59	52.79
1935	5.18	3.48	2.98	1.63	1.42	3.22	4.55	1.12	4.33	1.89	4.14	1.21	35.15
1936	7.71	2.44	4.41	3.37	2.67	4.77	2.61	3.84	5.12	3.21	1.23	7.56	48.94
1937	5.92	2.76	2.56	5.57	1.85	4.89	3.45	7.56	3.17	5.46	4.40	2.00	49.59
1938	4.16	1.98	2.54	3.31	3.48	6.76	6.23	2.54	9.81	1.59	3.40	2.19	47.99
Av. 31 yrs.	3.70	3.46	4.07	3.39	3.32	3.82	4.23	4.19	4.29	3.11	3.05	3.43	44.06

GLENS FALLS, N. Y. Elevation, 349 feet.
Record 1892 to 1930; January 1932 to December 1933 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.79	6.35	8.29	6.64	6.07	8.97	8.82	7.40*	7.61	7.04	10.02	5.98	53.86
Year	1892	1909	1913	1924	1892	1903	1897	1892	1907	1917	1897	1920	1897
Min.	1.08	0.41	0.04	0.60	0.27	0.36	1.50	1.49	0.66	0.12	0.62	1.01	31.88
Year	1896	1901	1915	1900	1903	1912	1913	1907	1928	1924	1904	1892	1914
Av. 35 yrs.	2.97	3.02	3.30	2.92	3.14	3.69	3.96	3.82	3.40	3.14	3.15	3.06	39.57
1929	3.23	3.00	3.90	6.10	4.04	4.44	2.33	3.12	5.66	2.45	1.94	3.78	43.99
1930	3.50	1.17	4.30	2.65	3.84	5.12	2.39	1.70	2.42	1.39	3.09	1.27	32.84
1931													
1932	4.02	2.10	2.69	2.43	1.30	2.37	3.73	3.99	1.15	5.37	7.11	1.33	37.59
1933	1.75	3.17	2.65	4.04	1.81	2.78	1.92	6.19	1.95	2.73	1.41	3.23	33.63

*Interpolated.

GREENFIELD CENTER, N. Y. Elevation, 610 feet.
Record January 1898 to December 1939 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1898	6.66*	5.10	1.78	2.72	4.49	3.08	2.30	6.39	3.05	5.28	4.20	1.91	46.96
1899	2.74	2.37	5.60	1.40*	2.15	1.73	3.65	2.20	8.82	2.23	2.27	3.16	38.32
1900	3.82	3.57	4.67	1.34	2.03	2.16	2.16	4.00	0.78	2.00	5.16	2.46	34.15
1901	2.01	0.61	3.80	5.90	4.97	2.55	4.12	4.78	4.39	1.10	1.56	3.10	38.84
1902	1.62	3.86	4.23	2.52	2.78	3.73	7.28	3.63	4.43	4.78	1.34	4.51	44.71
1903	4.26	5.12	6.15*	1.00*	0.44	7.92	4.20	7.42	1.50	4.16	1.99	2.17	46.33
1904	3.90	2.37	2.42	4.12	2.10	2.69	7.04	5.37	5.20	3.46	0.40	3.05	42.12
1905	4.55	2.20	2.87	2.85	1.27	5.04	3.75	3.49	7.02	2.70	3.29	2.72	41.75
1906	2.30	2.76	4.50	1.77	2.82	6.30	3.81	2.77	3.05	3.68	1.90	5.00	40.66
1907	4.97	0.90	2.60	4.10	4.42	3.81	3.65	1.51	8.62	4.40	3.72	5.05	47.75
1908	2.60	5.25	3.03	3.43	5.30	1.63	2.35	4.32	1.37	3.45	1.27	1.99	35.99
1909	4.70	5.77	4.31	4.21	5.26	2.36	3.07	2.20	3.78	0.96	2.40	1.65	40.67
1910	5.00	5.48	0.85	3.53	6.80	4.13	1.01	2.84	6.69	1.17	2.00	2.09	41.59
1911	2.51	1.51	3.08	1.46	2.43	3.68	1.63	2.83	5.72	6.56	2.26	2.68	36.35
1912	1.83	1.91	4.85*	3.06	3.85	0.76	2.65	3.42	3.37	4.83	2.86	3.55	36.94
1913	4.88	1.87	7.50	1.72	3.07	1.11	2.69	1.34	2.06	4.85	2.29	2.95	36.33
1914	2.78	4.30	3.11	7.75	1.49	1.52	3.30	5.84	0.82	1.45	2.32*	2.72	37.40
1915	4.14	4.44	0.00	1.59	2.06	2.92	8.92	5.60	3.39	2.23	1.77	4.45	41.51
1916	2.86	3.70	3.90	2.48	2.84	4.26	3.74	2.55	2.61	2.22	4.10	2.73	37.99
1917	1.89	1.63	2.00	1.55	2.86	5.86	2.08	2.48	1.33	6.26	1.95	3.52	33.41
1918	2.75	3.97	2.20	2.19	2.48	3.16	1.70	1.25	6.55	2.32	2.40	3.60	34.57
1919	2.20	2.12	5.02	2.34	4.34	1.69	3.09	2.41	3.67	3.04	3.18	1.87	34.97
1920	2.00	4.10	1.36	4.70	1.27	2.68	3.73	2.73	4.14	1.67	3.79	6.20	38.37
1921	4.25	2.35	3.05	1.79	1.83	2.80	6.00	3.50	2.51	2.54	5.87	2.11	38.60
1922	1.89	4.25	4.38	4.41	4.01	6.75	2.62	5.48	1.97	2.65	1.37	5.31	45.09
1923	6.09	1.45	3.02	4.61	2.73	2.90	2.48	3.27	4.62	2.39	4.40	3.31	41.27
1924	2.45	2.70	1.06	5.46	4.79	1.79	4.63	2.81	5.17	0.07	2.10	2.06	35.09
1925	3.31	2.32	4.63	3.38	3.48	6.18	6.85	2.04	4.24	4.04	5.40	2.88	48.75
1926	2.85	1.61	1.78	3.46	1.21	4.16	4.05	3.90	3.00	4.60	3.17	1.72	35.51
1927	2.89	3.20	2.20	0.93	4.32	2.45	4.95	3.61	1.51	6.12	7.84	4.86	44.88
1928	2.58	2.30	2.08	3.50	4.97	6.45	4.25	3.90	1.44	3.05	2.30	0.64	37.46
1929	3.05	3.00	3.40	6.52	4.30	6.50	2.80	3.55	3.71	2.10	3.10	3.95	45.98
1930	3.50	1.70	4.35	1.55	3.85	3.70	2.90	1.70	4.65	1.00	3.10	1.52	33.52
1931	2.45	1.97	2.55	3.00	3.75	4.85	8.05	2.30	5.10	1.75	2.40	4.75	42.92
1932	5.05	2.40	2.75	2.90	1.58	2.75	5.90	4.20	1.15	5.57	5.60	1.16	41.01
1933	2.12	2.35	3.92	4.95	2.35	1.37	1.27	8.35	2.90	2.65	1.80	2.50	36.53
1934	4.00	1.80	2.60	4.05	2.30	4.00	3.00	2.30	6.10	1.35	2.50	2.40	36.40
1935	6.95	2.55	1.40	1.92	2.40	6.40	11.90	2.55	3.65	1.80	6.75	1.50	49.77
1936	4.30	1.70	7.45	3.80	2.57	1.34	2.23	4.90	1.05	7.70	3.55	3.60	44.19
1937	5.95	1.00	1.55	3.40	4.20	6.05	2.95	2.50	2.42	3.20	3.00	3.20	39.42
1938	2.95	2.70	1.90	2.50	3.21	1.90	4.38	2.70	9.85	1.25	2.55	3.75	39.64
Av. 41 yrs.	3.50	2.84	3.26	3.17	3.16	3.59	3.98	3.53	3.84	3.14	3.05	3.03	40.09
1939	3.05	3.00	2.45	5.35	1.90	3.47	1.71	4.40	5.00	3.50	2.10	1.65	37.58

*Interpolated.

HARKNESS, N. Y. Elevation, 622 feet.
Record May 1902 to December 1932 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	3.55	3.18	3.81	4.12	4.81	7.31	7.99	5.31	6.75	6.34	6.50	3.18	39.96
Year	1925	1916	1913	1920	1912	1922	1905	1918	1925	1918	1927	1927	1918
Min.	0.11	0.24	0.09	0.46	T	0.42	0.95	0.53	0.34	0.42	0.29	0.19	19.26
Year	1927	1905	1915	1927	1903	1912	1922	1907	1903	1909	1904	1912	1921
Av. 26 yrs.	1.35	1.56	1.71	1.98	2.29	3.05	3.04	2.60	3.16	2.62	2.01	1.50	26.87
1929	0.89	1.26	1.25	3.90	2.91	6.70	1.47	1.60	1.12	1.84	1.80	2.24	26.98
1930	1.97	0.40	2.65	0.54	4.11	3.70	3.02	2.19	1.65	1.49	1.30	0.91	23.93
1931	2.41	0.93	1.22	1.24	2.27	1.72	5.64	2.34	3.24	1.79	1.22	1.40	25.42
1932	1.44	0.52	1.63	1.29	1.72	1.21	4.45	2.06	0.49	6.03	2.74	1.49	25.07

HOOSICK FALLS, N. Y. Elevation, 410 feet.
Record 1903 to 1923 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	4.51	4.90	4.43	6.07	6.08	7.28	11.30	6.67	6.54	5.85	5.45	5.04	43.39
Year	1909	1920	1913	1914	1906	1903	1915	1905	1904	1913	1922	1915	1907
Min.	1.01	0.80	0.26	0.51	0.30	1.04	1.32	0.49	0.63	0.70	1.01	0.97	28.44
Year	1921	1905	1915	1903	1903	1915	1918	1918	1908	1916	1917	1913	1917
Av. 18 yrs.	2.38	2.33	2.86	2.81	3.18	3.47	4.30	3.42	3.62	3.05	2.59	2.39	36.40

HUDSON ACADEMY, N. Y. Elevation, 165 feet.
Record 1827 to 1829; 1831-1835; 1842 to 1849; 1851-1853; 1855; 1869; 1921 to 1929.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1827	2.47	2.26	1.28	4.55	3.31	2.60	3.67	4.20	4.75	4.30	3.58	2.90	39.87
1828	2.40	5.30	2.90	2.24	3.25	7.87	3.21	0.85	7.89	1.25	5.72	1.37	44.25
1829	3.73	3.30	2.10	3.80	1.69	3.15	4.56	1.41	0.66	2.76	2.49	3.82	33.47
1831	4.50	3.50	1.55	4.25	2.95	3.60	3.78	5.61	4.30	6.09	2.25	2.27	44.65
1832	4.10	3.27	4.15	4.30	1.20	2.36	6.34	3.60	4.30	4.15	3.40	4.40	45.57
1833	2.95	2.00	2.80	0.90	5.90	3.20	5.00	4.12	2.75	8.40	1.40	3.10	42.52
1834	1.45	0.40	1.04	5.85	4.86	4.10	3.20	0.95	0.95	2.35	1.16	4.18	30.49
1835	4.60	0.65	2.45	4.50	2.29	5.79	4.09	3.56	1.88	1.65	1.65	1.19	34.30
1842	0.92	2.89	1.81	2.65	1.62	3.45	4.07	4.77	3.59	2.85	2.48	4.47	35.57
1843	2.17	4.80	5.42	2.31	1.51	4.58	2.81	6.15	1.57	5.91	1.94	0.62	39.79
1844	2.60	1.02	2.94	0.81	3.82	3.93	5.89	1.71	1.52	3.41	0.86	3.97	32.48
1845	3.00	1.30	2.32	1.54	2.10	1.46	3.12	1.36	2.37	1.73	3.69	2.89	26.88
1846	1.95	0.82	4.04	0.45	3.77	1.41	3.74	1.49	0.73	2.00	2.98	2.34	25.72
1847	3.77	3.67	4.53	0.92	1.98	4.27	2.38	2.88	4.33	3.72	0.98	4.76	38.19
1848	1.59	1.48	1.76	0.42	5.02	5.49	1.50	2.40	2.08	4.74	2.78	3.88	33.14
1849	0.73	0.62	3.25	1.18	4.74	1.57	1.23	2.62	0.08	8.36	4.15	1.01	29.54
1851	——	——	——	——	——	——	——	——	2.09	2.94	3.86	1.15	——
1852	1.74	2.06	2.68	3.52	1.59	1.98	5.11	5.09	1.88	2.75	4.42	3.32	36.14
1853	3.04	3.18	1.74	3.91	7.49	2.16	3.44	5.72	7.51	2.62	1.82	13.00	55.63
1855	6.56	7.97	5.95	5.18	5.07	9.16	6.41	2.64	4.60	7.93	6.00	8.77	76.24
1869	——	——	——	——	——	3.72	3.66	2.40	3.68	14.40	1.72	3.95	——
1920	——	——	——	——	——	——	——	——	4.67	0.92	2.40	4.96	——
1921	1.65	3.30	2.81	4.61	1.81	2.04	4.34	3.32	1.81	1.71	5.72	1.40	34.52
1922	1.58	1.88	4.35	3.93	3.67	7.45	3.11	7.84	1.29	1.86	0.46	2.65	40.07
1923	5.45	1.53	1.22	2.49	1.81	4.23	2.45	2.74	4.56	2.80	3.65	1.84	34.77
1924	2.02	2.33	0.43	6.24	3.03	2.03	3.46	3.81	6.66	0.25	2.71	1.10	34.07
1925	4.18	2.58	4.64	2.60	2.70	4.25	4.57	2.05	4.34	3.06	4.57	2.34	41.88
1926	1.22	5.44	0.75	1.89	1.76	3.26	3.10	5.25	2.81	4.93	3.46	2.14	36.01
1927	2.21	2.47	0.70	1.70	5.20	2.06	8.49	9.51	2.60	6.37	6.09	1.20	48.60
1928	1.97	1.67	2.36	2.91	1.69	7.89	4.36	6.75	1.80	0.56	0.73	0.46	33.15
1929	1.07	2.86	2.43	6.98	2.90	——	1.15	1.10	——	——	2.47	——	——
Av. 27 yrs.	2.76	2.65	2.67	2.95	3.18	3.90	3.98	3.79	3.10	3.65	3.01	3.16	38.80

KEENE VALLEY, N. Y. Elevation, 1,012 feet.
Record 1879 to 1895; 1898 to 1918 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1879	1.35	2.44	2.49	2.24	0.82	2.72	2.89	1.99	2.93	0.88	4.66	2.97	28.38
1880	3.33	2.69	1.75	2.18	2.74	1.65	3.05	2.68	3.65	3.77	2.86	0.77	31.12
1881	2.08	2.20	4.10	1.01	2.99	2.56	2.25	2.89	3.21	2.42	1.72	3.20	30.63
1882	1.73	1.99	4.31	0.94	2.46	4.05	1.88	2.62	3.74	0.73	1.43	1.74	27.62
1883	1.55	2.60	1.83	1.57	6.03	2.73	3.41	1.32	2.54	2.39	1.99	1.14	29.10
1884	2.88	3.13	3.18	1.47	3.01	1.34	2.15	3.71	1.81	2.32	2.44	3.03	30.47
1885	4.29	3.22	1.36	2.75	1.44	1.23	3.56	8.05	2.88	5.34	4.19	2.32	40.63
1886	4.03	1.38	1.70	4.33	2.33	1.85	3.22	4.15	3.47	2.37	6.01	1.51	36.35
1887	3.05	2.92	2.38	2.00	0.81	3.48	5.76	1.79	0.53	1.20	3.27	2.76	29.95
1888	2.30	1.52	3.23	1.89	2.92	3.42	2.46	4.33	4.49	2.92	5.06	2.72	37.26
1889	5.43	1.09	0.68	2.63	3.33	5.77	7.92	1.44	3.04	2.60	3.78	4.50	42.21
1890	4.42	3.73	1.49	1.82	4.96	2.34	2.22	6.99	4.58	3.08	3.02	2.59	41.24
1891	4.23	2.71	3.26	2.55	2.82	2.71	2.97	2.55	1.75	2.80	3.40	3.00	34.75
1892	5.02	1.37	1.41	1.80	4.33	3.59	8.48	5.87	2.71	1.77	4.10	0.61	41.06
1893	1.85	2.48	0.95	2.37	5.37	1.33	4.78	9.92	2.29	2.21	1.94	3.92	39.41
1894	2.33	1.61	1.40	1.22	4.44	2.72	1.86	2.10	3.79	4.22	4.05	2.20	31.94
1895	1.12	0.61	0.96	2.34	2.60	4.21	3.17	8.00	3.75	1.43	5.79	3.73*	37.71
1898	7.20	2.80	2.30	2.85	2.20	2.50	4.04	4.25	3.56	3.86	2.53	1.75	39.84
1899	2.15	1.33	3.38	0.33	1.75	1.39	3.91	1.45	6.54	1.99	1.60*	2.75*	29.07
1900	2.62	3.49	5.42	0.83	2.22	2.25	2.52	4.74	1.91	1.73	6.95	3.01	37.69
1901	2.13	0.73	2.18	6.75	5.72	4.25	5.68	3.65	2.35	3.16	1.92	4.08	42.60
1902	2.65	3.50	6.58	4.91	3.49	5.46	5.27	2.72	2.79	5.75	2.12	3.41	48.65
1903	2.79	4.02	3.79	2.37	0.02	9.25	5.33	3.45	1.30	5.00	0.84	3.07	41.23
1904	2.24	1.75	2.55	2.86	2.81	1.49	4.26	2.83	4.61	3.14	0.35	0.97	29.86
1905	2.92	0.62	1.21	2.22	4.00*	7.15	7.13	5.31	5.82	2.98	1.66	2.55	43.57
1906	2.09	1.06	2.29	1.39	4.35	4.71	3.02	5.98	2.75	3.73	2.88	4.22	38.47
1907	1.20*	0.65	1.59	2.56	1.52	3.68	2.25	1.08	6.29	3.18*	4.99	4.26	33.25
1908	3.24	3.97	1.83	2.49	5.44	1.58	2.21	2.24	0.70	2.40*	1.84	2.05*	29.99
1909	4.28*	4.34	3.08	1.86	4.56	2.10	3.26	2.05	3.01	0.88	2.40	2.10	33.92
1910	5.82	4.35	1.25	3.30	2.97	2.08	1.64	2.12	3.22	2.39	2.45	2.43	34.02
1911	1.74	1.92	3.51	1.69	1.17	4.07	2.19	1.94	3.41	3.63	3.27	2.35	30.89
1912	1.86	2.66	2.91	2.34	3.17	0.37	2.91	3.86	5.44	4.39	4.14	2.07	36.12
1913	5.25	1.26	5.54	2.56	2.62	1.43	3.43	1.06	2.76	4.94	2.64	2.51	36.00
1914	1.97	1.42	3.83	——	——	——	——	——	——	——	——	——	——
1915	——	——	——	——	——	5.77	4.41	4.88	2.66	4.66	2.81	3.86	——
1916	2.20	1.88	1.73	3.77	6.93	7.43	3.01	3.26	5.36	2.41	2.76	3.08	43.82
1917	3.05	1.79	3.48	1.29	3.55	5.76	0.59	3.82	3.23	7.49	0.61†	1.52*	36.18
1918	——	——	——	——	1.27	3.06	4.17	4.37	4.83	——	——	——	——
Av. 35 yrs.	3.04	2.28	2.60	2.34	3.20	3.28	3.56	3.61	3.32	3.02	3.02	2.59	35.86

*Interpolated.
†5 days missing.

LAKE GEORGE, N. Y. Elevation, 350 feet.
Record 1896 to 1925 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.36	7.98	9.26	6.62	6.20	11.86	9.27	7.37	8.23	8.54	6.95	6.01	53.86
Year	1898	1909	1913	1924	1912	1917	1915	1898	1899	1917	1897	1902	1917
Min.	1.68	0.58	0.20	0.94	0.29	0.56	0.70	0.91	0.81	0.41	0.75	0.78	31.01
Year	1916	1901	1915	1900	1903	1912	1925	1899	1900	1924	1904	1924	1914
Av. 26 yrs.	3.18	3.41	3.45	3.07	3.37	3.79	3.88	3.82	3.74	3.39	2.86	3.33	41.29

LAKE PLACID CLUB, N. Y. Elevation, 1,864 feet.
Record 1909 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1909	5.95	2.29	4.85	5.49	5.14	2.46	5.20	2.67	1.92	2.53	1.65	3.67	43.82
1910	4.42	6.57	4.06	2.63	4.47	3.17	2.87	4.65	2.78	3.34	4.91	4.44	48.31
1911	5.50	5.09	4.61	1.95	3.19	3.87	3.01	3.04	2.29	3.44	3.59	3.12	42.70
1912	3.70	2.85	2.42	3.33	6.82	1.39	6.10	4.19	6.01	2.59	4.83	4.02	48.25
1913	7.36	2.27	7.90	4.46	1.85	2.22	3.75	1.57	2.69	4.88	4.08	3.98	47.01
1914	3.50	1.91	4.28	5.14	0.86	2.81	3.60	4.10	2.40	1.11	3.94	3.80	37.45
1915	3.88	4.63	2.48	3.18	2.05	4.08	7.09	3.64	1.81	2.23	3.83	6.40	45.30
1916	4.22	3.19	2.68	2.10	4.13	3.00	6.85	2.48	3.22	2.01	3.01	3.45	40.34
1917	5.63	3.49	4.94	4.39	4.13	4.49	0.65	2.15	3.99	4.54	0.72	1.61	40.73
1918	2.69	2.73	2.10	2.90	2.60	2.40	5.03	5.92	4.85	6.87	2.70	1.91	42.70
1919	1.22	2.26	4.05	2.40	4.08	———	———	———	2.84	4.02	2.43	———	———
1920	2.23	2.76	2.85	4.72	1.38	1.10	5.35	3.53	2.68	2.79	3.92	4.81	38.12
1921	1.99	2.98	3.09	2.17	0.18	1.87*	2.94	1.97	1.16	3.23	3.81	2.32	27.71
1922	1.97	4.33	3.72	4.45	2.64	7.28	1.99	3.31	1.26	2.09	2.15	2.56	37.75
1923	3.10	1.66	4.87	2.49	1.28	5.46	1.79	1.72	3.11	1.54	2.55	3.05	32.62
1924	———	———	———	———	———	2.50	3.86	3.92	5.71	0.92	2.63	1.21	———
1925	2.89	2.02	3.91	1.31	3.70	5.19	3.36	2.76	6.26	4.30	1.63	1.50	38.83
1926	2.16	1.90	2.50	3.18	1.61	3.99	3.48	6.50	4.00	2.54	2.53	1.98	36.37
1927	1.70	3.93	0.66	1.35	3.46	1.73	3.32	4.13	2.51	4.33	6.38	6.31	39.31
1928	3.55	1.90	3.26	1.20	2.14	2.64	3.78	4.01	2.40	2.45	2.40	1.45	31.18
1929	1.85	2.00	4.05	4.65	3.52	6.20	6.53	2.85	2.32	3.55	3.05	2.90	43.47
1930	3.00	0.85	3.05	1.65	4.85	4.78	3.48	1.98	1.90	1.65	2.00	1.40	30.59
1931	3.68	1.73	2.80	1.17	3.86	1.31	3.89	1.41	5.34	2.12	2.46	2.57	32.34
1932	3.74	3.19	6.59	3.08	2.86	3.39	8.22	3.68	1.27	7.08	3.32	2.69	49.11
1933	2.96	3.93	3.86	2.97	3.89	2.25	2.33	4.44	3.23	1.39	3.59	2.84	37.68
1934	2.91	2.30	2.81	1.87	1.24	4.41	2.07	1.80	3.41	2.72	2.80	3.34	31.68
1935	4.01	2.53	1.26	2.89	2.90	5.88	5.89	3.08	4.14	2.14	2.65	1.31	38.68
1936	3.69	1.84	4.26	3.95	3.50	2.98	3.00	4.58	4.68	4.76	2.25	3.12	42.61
1937	3.13	2.31	4.21	2.26	5.06	4.55	1.83	4.08	2.76	2.68	2.30	2.63	37.80
1938	2.48	3.73	3.40	2.00	2.77	2.14	6.84	4.48	8.06	1.17	2.50	3.26	42.83
Av. 28 yrs.	3.49	2.89	3.62	2.96	3.08	3.47	4.08	3.38	3.30	3.07	3.06	3.07	39.47
1939	4.55	4.32	2.71	2.48	1.99	3.69	1.74	2.65	2.92	2.28	1.82	3.11	34.26
1940	2.43	2.25	5.26	2.76	2.63	6.65	4.75	0.87	4.28	2.86	2.26	4.52	41.52
1941	2.18	2.11	3.65	0.61	2.31	2.04	3.85	2.20	1.71	3.79	1.83	2.96	29.24

*Interpolated.

MECHANICSVILLE, N. Y. Elevation, 60 feet.
Record January 1911 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	4.04	3.20	5.03	5.02	4.86	6.97	7.34	5.77	6.72	7.01	9.33	4.29	42.32
Year	1923	1926	1913	1914	1919	1922	1915	1928	1918	1927	1927	1927	1927
Min.	0.42	0.80	T	0.90	1.05	0.71	1.60	1.70	0.93	1.14	0.92	0.79	28.08
Year	1921	1911	1915	1927	1920	1913	1922	1913	1914	1928	1917	1924	1913
1929	1.90	2.52	2.83	6.28	3.18	5.57	1.08	1.72	2.73	1.61	2.47	2.22	34.11
1930	2.29	1.16	3.08	1.54	3.55	5.76	2.79	0.83	1.94	1.10	2.34	0.63	27.01
1931	1.38	1.50	1.76	2.65	3.88	3.71	8.75	2.44	3.72	1.92	1.26	3.64	36.61
1932	3.21	1.26	2.86	2.49	2.62	5.39	4.23	4.99	1.27	4.50	5.35	1.12	39.29
1933	1.74	1.85	3.84	5.24	2.63	1.77	1.28	6.04	4.88	2.87	0.68	2.17	34.99
1934	2.95	0.80	2.13	3.58	1.83	4.52	3.78	2.36	4.82	1.55	1.82	2.07	32.21
1935	3.95	1.88	0.94	1.98	2.64	4.57	8.14	2.14	3.36	1.94	4.18	1.20	36.92
1936	3.04	1.44	5.93	3.72	1.81	1.54	2.11	4.44	1.35	4.57	2.36	3.06	35.37
1937	3.07	1.73	1.54	2.23	3.17	5.04	2.99	2.28	2.65	2.82	1.81	2.14	31.47
1938	3.08	1.08	1.68	2.32	2.24	2.48	4.75	3.19	9.76	1.66	1.60	2.40	36.24
Av. 28 yrs.	2.15	1.78	2.53	3.03	2.89	3.62	3.62	3.23	3.47	3.00	2.86	2.11	34.29
1939	1.55	2.62	2.28	4.11	0.85	2.92	2.32	2.42	4.61	3.34	2.09	1.25	30.36
1940	0.94	2.30	4.29	4.50	4.14	3.64	5.33	1.79	5.57	1.39	3.62	4.15	41.66
1941	1.81	1.72	1.54	0.56	1.08	1.59	3.80	2.06	4.82	2.70	1.86	2.25	25.79

MEDFORD (LONG ISLAND), N. Y. Elevation, 110 feet.
Record January 1914 to June 1927 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	11.14	5.66	6.27	6.50	5.77	8.59	10.12	9.09	6.53	6.36	5.45	7.75	56.37
Year	1915	1915	1919	1920	1924	1922	1916	1915	1918	1923	1920	1920	1919
Min.	1.43	1.69	0.53	1.78	2.37	1.51	0.34	1.70	0.72	0.64	0.76	1.82	38.85
Year	1916	1918	1915	1915	1923	1919	1924	1923	1914	1924	1917	1917	1917
Av. 13 yrs.	4.20	3.37	3.73	3.93	3.99	3.96	4.47	4.39	3.00	3.24	3.28	4.46	46.02

MIDDLE BRANCH RESERVOIR, N. Y. (Croton Watershed, New York Water Supply).
Elevation, 400 feet.
Record January 1878 to December 1927 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.88	7.86	7.31	7.63	7.90	11.35	11.71	13.94	13.43	9.76	8.73	8.69	64.20
Year	1891	1893	1912	1909	1893	1903	1889	1898	1882	1913	1889	1901	1901
Min.	1.30	0.79	0.19	1.04	0.30	1.04	2.14	0.32	0.40	0.14	1.09	1.06	35.19
Year	1896	1901	1915	1892	1887	1913	1907	1899	1914	1924	1890 & 1908	1892	1880
Av. 50 yrs.	4.00	3.98	3.93	3.42	3.82	3.48	4.83	4.84	4.07	3.81	3.63	3.94	47.75

MOHONK LAKE, N. Y. Elevation, 1,245 feet.
Record January 1896 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1896	1.49	4.99	11.07	1.30*	2.11	2.22	4.32	2.70	6.64	3.11	4.79	1.90	46.64
1897	1.89	3.02	4.00	2.12	3.92	2.29	14.71	4.11	1.89	1.06	5.10	5.44	49.55
1898	5.07	5.09	2.93	2.66	4.28	2.07	3.90*	8.19	2.50*	3.90*	2.16	2.54*	45.29
1899	1.70	3.35	6.77	1.57	1.50*	3.62	6.32	1.52	8.90	0.80*	2.45	1.68	40.18
1900	2.61	6.00	5.41	3.26	3.66*	1.94	4.63	5.23	3.55	3.60*	4.69	2.66	47.24
1901	1.82	0.95	6.03	11.32	8.75	2.77	4.46	9.53	3.81	1.62	2.49	6.88	60.43
1902	3.44	4.32	6.32	4.09	2.78	5.57	9.75	2.86	7.69	5.90	1.17	6.86	60.75
1903	3.13	5.56	4.60	3.03	0.88	12.44	4.02	10.80	1.71	8.90	2.33	2.35	59.75
1904	2.90	1.39	3.94	3.75	2.99	5.03	2.90	7.90	7.37	4.13	1.27	2.27	45.84
1905	4.60	1.05	2.84	2.28	1.32	3.02	4.75	4.32	7.60	1.97	1.98	3.38	39.11
1906	2.96	2.81	3.28	5.16	4.83	3.90	5.78	3.83	3.20	3.75	1.83	5.52	46.85
1907	4.84	2.57	1.97	2.12	4.16	4.15	2.84	1.88	9.01	7.22	4.93	5.61	51.30
1908	1.98	4.69	1.57	2.81	9.55	3.80	4.78	2.84	1.35*	3.21	0.65	2.85	40.08
1909	4.94	6.28	3.34	5.00	3.17	3.88	2.24	6.34	5.64	1.22	1.52	4.93	48.50
1910	7.28	7.06	0.98	8.03	3.57	2.61	2.58	6.39	5.87	1.60	4.54	2.58	53.09
1911	2.61	2.73	4.37	3.01	2.77	5.50	2.50	5.85	3.56	10.51	1.56	3.38	48.35
1912	0.79	2.30	6.96	4.95	3.99	1.30	3.42	3.88	3.28	4.50	1.40	4.63	41.40
1913	3.96	3.57	6.81	5.39	3.49	1.85	1.11	3.97	4.05	5.84	3.00	3.16	46.20
1914	5.10	3.29	8.95	4.80	4.10	2.40	3.75	2.54	0.32	3.55	3.54	3.93	46.27
1915	6.56	4.46	0.28	2.01	2.54	2.65	8.24	7.94	2.87	2.50	1.22	8.90	50.17
1916	1.01	5.54	5.76	4.05	2.93	5.22	6.27	2.87	4.13	1.57	4.08	4.35	47.78
1917	4.21	3.08	4.95	2.05	2.76	4.37	2.88	2.04	0.64	3.16	1.20	3.80	35.14
1918	4.90	2.27	1.70	6.21	4.66	2.84	5.11	4.13	6.69	2.49	2.60	4.70	48.30
1919	2.87	3.25	5.53	2.95	5.39	2.40	6.76	5.90	6.29	2.75	5.86	2.24	52.19
1920	3.78	5.70	3.94	4.28	1.87	5.48	4.12	5.03	5.25	3.19	3.96	5.21	51.81
1921	0.97	5.16	6.06	6.20	2.73	1.00	4.95	3.35	4.63	1.72	5.01	1.94	43.72
1922	1.72	1.85	3.29	2.64	4.62	7.99	3.78	4.25	1.55	2.45	0.92	3.91*	38.97
1923	5.47	2.58	1.70	2.20	3.73	4.26	4.35	2.05	4.05	4.00	4.70	4.51	43.60
1924	5.73	2.56	2.59	5.88	3.38	1.56	2.85	0.97	5.29	T	2.52	1.39	34.72
1925	3.67	2.82	4.22	2.11	2.62	3.34	4.66	2.67	4.46	5.62	4.52	2.68	43.39
1926	1.78	6.33	2.33	2.83	1.53	2.74	4.37	4.18	3.69	5.76	3.93	2.94	42.41
1927	3.32	2.23	1.88	2.06	5.30	1.64	4.19	7.42	4.57	5.76	3.26	4.75	51.38
1928	2.13	3.16	1.34	5.31	2.57	8.73	8.45	9.72	2.36	0.12	2.53	0.60	47.02
1929	3.32	3.60	1.05	8.90	3.44	2.61	3.29	5.13	1.65	4.16	2.62	5.44	45.21
1930	1.22	1.15	1.67	0.97	3.76	4.34	2.81	4.58	3.47	1.08	4.51	1.84	31.40
1931	1.43	1.54	0.60	4.62	5.08	5.30	6.95	4.11	2.41	2.26	1.40	2.16	37.86
1932	4.45	2.18	3.54	1.10	2.42	5.89	2.89	4.61	0.80	5.40	8.91	0.85	43.04
1933	2.23	3.74	5.58	7.41	2.69	1.52	2.82	10.70	8.63	3.46	1.14	3.64	53.56
1934	2.41	3.30	3.61	5.60	4.15	4.33	6.69	3.45	10.01	2.29	5.72	4.41	55.97
1935	3.88	2.79	2.13	3.17	1.92	4.96	3.74	1.14	3.34	3.21	5.61	1.06	36.95
1936	4.88	3.05	3.34	4.63	2.45	3.93	1.79	3.21	0.97	4.50	2.31	5.93	50.99
1937	5.90	2.53	2.39	4.15	5.58	6.47	3.99	5.31	5.18	4.83	4.24	2.69	53.26
1938	4.30	1.60	1.78	2.75	3.95	9.45	8.06	5.55	11.59	2.88	2.71	4.70	59.32
Av. 43 yrs.	3.38	3.43	3.92	3.97	3.58	4.03	4.71	4.88	4.48	3.52	3.30	3.66	46.86
1939	3.86	4.48	3.52	5.64	2.02	2.04	3.92	4.23	2.44	4.69	1.32	1.83	39.99
1940	2.24	3.06	6.47	6.45	6.06	3.35	2.76	3.42	2.80	2.38	5.69	3.70	48.38
1941	1.81	1.72	1.54	0.56	1.08	1.59	3.80	2.06	4.82	2.70	1.86	2.25	25.79

*Interpolated.

MT. HOPE, N. Y. Elevation, 200 feet.
Record January 1897 to June 1929 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.22	7.19	8.20	9.02	7.91	8.33	11.12	11.25	10.00*	11.30	7.80	6.72	66.08
Year	1915	1915	1919	1901	1898	1928	1897	1927	1907	1903	1907	1902	1913
Min.	1.59	1.02	1.03	1.95	0.78	0.94	0.79	1.20	0.37	0.00	0.43	1.94	35.60
Year	1922	1901	1915	1900	1903	1901	1910	1899	1914	1924	1903	1918	1910
Av. 32 yrs.	3.61	3.75	4.19	4.12	4.22	4.18	5.26	5.01	3.68	4.24	3.25	4.15	49.66
1929	2.75†	4.57	4.08	7.19	5.35	1.94	——	——	——	——	——	——	——

*Interpolated.
†5 days missing.

MT. McGREGOR, N. Y. Elevation, 1,060 feet.
Record 1913 to December 1918; January 1922 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1913	——	——	——	——	——	——	2.13	1.50	1.81	5.93	——	——	——
1914	2.38	3.28	3.46	7.14*	1.36*	1.75	2.54	6.04	1.53	1.13	2.81	3.40	36.82
1915	4.61	6.06	T	1.62	2.38	4.88	11.47	6.13	3.66	2.41	1.86*	4.24*	49.32
1916	2.70*	3.89*	3.33*	1.53	3.10	4.59*	4.56*	2.28	3.40	2.14	3.24	2.50	37.26
1917	4.08	1.94	4.09	1.78	3.39	8.08	1.41	4.65	1.48	7.44	1.91	4.22	44.47
1918	3.00	2.81	2.88	1.81	3.94	4.17	2.14	3.91	5.84	2.55	2.79	1.95	37.79
1922	3.46	4.21	4.76	3.70	2.29	5.73	3.27	3.84	1.35	2.30	1.66	3.50	40.07
1923	6.19	2.15	3.28	2.10	1.27	1.71	1.60	1.40	2.42	1.54	1.71	4.70	30.07
1924	2.89	2.82	0.94	4.62	2.44	1.77	2.37	1.79	3.47	0.08	0.57	2.30	26.06
1925	3.45	2.15	3.13	4.05	0.54	6.90	7.25	4.00	4.60	3.32	5.59	2.21	47.19
1926	3.01	6.29	1.68	3.21*	1.50	5.36	3.68	3.57	3.01	3.36	3.51	2.38	40.56
1927	1.60	3.45	1.42	1.29	4.55	2.18	4.56	4.33	1.47	6.22	7.51	5.01	43.59
1928	1.84	2.75	3.78	3.68	2.86	5.87	3.95	4.36	1.36	2.50	2.41	0.92	36.28
1929	3.37	2.96	2.73	3.32	3.24	5.73*	2.78	3.02	5.40	3.25	2.49	4.10	42.39
1930	4.24	2.06	4.07	1.55	3.43	5.66	2.32	2.49	2.90	0.79	3.41	1.94	34.86
1931	2.90	2.18	2.03	3.71	5.46	6.25	8.56	4.26	6.24	1.96	2.21	4.59	50.35
1932	4.52	2.72	4.73	3.47	2.60	2.45	5.46	4.93	2.16	6.57	8.31	1.60	49.52
1933	2.43	3.81	4.32	5.82	2.60	2.70	4.23	9.37	3.21	2.74	2.00	3.42	46.65
1934	4.03	2.69	2.87	5.29	2.48	4.51	2.60	2.13	6.80	1.47	2.59	3.15	40.61
1935	6.60	2.93	1.79	2.23	2.39	6.05	19.37	3.41	3.74	2.27	7.36	1.97	60.11
1936	6.13	2.17	9.00	5.08	2.98	1.02	2.41	4.85	1.26	8.22	3.37	4.63	51.12
1937	6.08	2.54	2.88	3.62	4.59	6.12	3.07	2.88	2.00	3.78	5.22	3.05	45.83
1938	4.24	2.71	1.79	2.63	3.13	1.35	4.96	4.01	9.31	1.44	2.85	4.09	42.51
Av. 22 yrs.	3.81	3.12	3.13	3.33	2.84	4.31	4.75	3.98	3.48	3.07	3.43	3.18	42.43
1939	3.93	4.24	3.32	5.14	2.28	3.47	1.28	4.26	2.32	3.71	1.53	1.97	37.45
1940	1.37	5.06	5.24	5.38	4.10	3.75	4.66	1.34	3.59	2.15	4.91	5.96	47.51
1941	2.10	2.44	2.02	0.78	0.71	4.53	5.75	3.80	3.90	3.99	2.95	3.33	36.80

MT. VERNON, N. Y. Elevation, 155 feet.
Record January 1915 to December 1918; January 1922 to November 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1915	7.87	5.86	0.88	2.90	3.61	4.75	1.96	8.83	2.77	2.37	1.56	4.89	48.25
1916	1.47	5.31	4.64	3.31	4.96	4.98	4.14	1.39	2.60	1.28	2.06	4.35	40.49
1917	3.18	2.39	5.24	2.66	3.92	3.44	2.78	1.17	1.80	6.45	1.71	4.97	39.71
1918	3.94	3.02	1.80	3.79	4.32	3.79	5.51	2.66	3.28	1.22	3.32	4.15	40.80
1922	2.68	3.58	5.17	2.07	4.01	7.03	6.97	3.83	4.32	2.13	1.43	3.79	47.01
1923	7.47	3.37	3.72	3.25	2.02	2.91	1.97	1.19	3.02	4.81	3.52	4.41	41.66
1924	4.55	4.61	1.23	6.27	5.96	3.10	1.37	4.75	4.53	0.24	1.97	2.83	41.41
1925	4.88	3.01	4.12	1.99	4.64	3.68	6.79	2.21	3.50	4.60	3.72	3.11	46.25
1926	2.60	7.11	3.07	2.00	2.04	2.27	6.40	9.30	4.73	4.63	4.10	3.93	52.18
1927	3.45	3.14	1.95	3.15	5.31	3.82	9.57	12.32	3.44	9.08	4.95	4.10	64.28
1928	1.80	4.81	3.24	4.47	2.05	7.34	8.46	4.43	4.41	1.76	2.59	1.34	46.70
1929	3.82	4.32	3.56	6.17	3.89	1.78	1.48	2.02	3.78	3.67	2.64	3.58	40.71
1930	2.86	3.10	1.75	2.60	4.35	4.23	3.57	3.25	2.83	1.67	5.35	3.51	39.07
1931	2.15	3.07	4.82	4.46	5.33	3.50	3.41	3.25	1.74	3.62	0.67	2.57	38.59
1932	3.99	2.97	5.39	2.55	2.61	4.09	2.32	3.34	2.72	4.74	7.59	2.71	45.02
1933	1.73	3.31	5.48	5.50	3.95	2.53	4.35	8.53	7.97	2.47	1.00	3.85	50.67
1934	3.53	3.42	3.87	3.89	5.64	2.94	3.57	2.34	11.60	2.57	2.12	2.43	47.92
1935	4.39	3.12	3.14	1.38	1.49	3.70	5.23	2.71	4.18	1.89	4.01	1.57	36.81
1936	7.73	2.46	5.05	3.37	2.31	6.57	4.94	3.88	5.19	2.61	1.18	7.45	52.74
1937	6.59	2.36	3.10	4.68	3.07	4.06	3.14	8.45	3.73	4.69	4.00	2.43	50.30
1938	2.98	1.87	1.95	2.84	3.24	7.36	8.42	4.22	10.45	1.96	3.03	3.01	51.33
Av. 21 yrs.	3.98	3.63	3.48	3.49	3.75	4.18	4.59	4.48	4.41	3.26	2.98	3.57	45.80
1939	4.44	5.76	4.89	4.50	0.50	3.69	2.53	5.14	1.48	4.90	2.21	1.93	41.97
1940	1.60	2.33	4.21	5.24	6.51	4.76	2.86	5.23	2.81	2.55	4.39	2.43	44.92
1941	2.85	3.20	2.82	1.66	2.73	5.55	5.03	4.72	0.07	2.19	2.03	——	——

VICINITY OF NEW YORK CITY. Elevation, 97 feet.
Record January 1836 to December 1941 inclusive.
1836-1854, Fort Columbus; 1855-1868, Deaf and Dumb Asylum; 1869-1941, Central Park Observatory.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.94	10.09	8.79	9.05	9.70	10.42	11.89	15.26	16.85	13.31	9.97	8.60	65.51
Year	1915	1866	1876	1857	1946	1865	1889	1843	1882	1903	1889	1854	1837
Min.	0.61	0.46	0.70	0.55	0.34	0.76	0.49	0.54	0.21	0.28	0.71	0.68	27.57
Year	1849	1895	1854	1844	1887	1843	1910	1916	1884	1924	1890	1877	1836
1929	3.33	5.07	4.23	5.85	4.01	1.90	1.21	1.47	3.12	4.63	2.22	3.34	40.38
1930	2.37	3.24	2.23	2.30	3.43	2.92	6.61	4.32	1.47	1.71	5.62	2.73	38.95
1931	2.56	2.71	4.83	3.79	4.38	3.76	3.39	3.24	1.57	2.80	0.60	2.44	36.07
1932	4.45	2.70	5.82	2.34	2.95	4.36	1.42	3.20	1.22	5.58	7.38	2.51	43.93
1933	1.78	3.09	6.08	5.18	5.20	2.67	3.72	8.85	10.09	2.52	0.90	3.45	53.53
1934	3.42	3.01	4.47	3.45	5.19	3.68	4.24	2.77	11.96	2.82	2.17	2.66	49.84
1935	3.91	3.17	2.48	1.53	1.05	3.98	5.24	1.42	4.34	2.23	3.26	1.24	33.85
1936	7.54	2.68	5.45	3.30	2.97	4.62	1.89	3.99	4.82	3.90	1.14	7.53	49.83
1937	5.97	2.48	2.90	5.09	2.91	4.36	5.54	7.32	5.05	4.56	4.73	2.06	52.97
1938	3.99	1.97	2.22	3.38	3.36	7.13	5.82	3.92	9.06	1.75	3.27	2.62	48.49
Av. 103 yrs.	3.50	3.51	3.75	3.53	3.83	3.78	4.25	4.49	3.77	3.68	3.39	3.62	45.10
1939	3.80	6.20	4.78	4.26	0.89	3.80	0.99	4.83	1.90	4.31	1.40	1.39	38.55
1940	2.61	2.63	4.73	5.46	7.61	3.01	3.30	4.13	2.82	2.43	3.55	2.79	45.07
1941	3.23	3.53	3.05	2.40	2.25	4.77	4.07	5.92	0.51	1.87	3.39	4.05	39.04

OLD CROTON DAM, N. Y. (New York Water Supply). Elevation, 200 feet.
Record January 1868 to December 1927 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.01	9.19	14.64	8.97	13.78	9.22	10.99	13.06	20.47	10.69	8.44	13.28	82.46
Year	1884	1885	1876	1901	1868	1903	1897	1875	1868	1877	1889	1878	1868
Min.	0.76	0.17	0.46	0.70	0.18	0.14	1.23	1.29	0.21	0.30	0.75	0.99	34.10
Year	1872	1874	1915	1872	1887	1873	1910	1923	1914	1924	1908	1874	1874
Av. 60 yrs.	4.22	4.20	4.50	3.64	3.89	3.69	4.85	5.24	4.39	3.96	3.96	4.06	50.60

PLATTSBURG, N. Y. Elevation, 125 feet.
Record January 1869 to December 1913 inclusive.
(1910 and 1911 observations at Harkness, N. Y. Elevation, 622 feet.)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.26	6.21	4.95	3.98	4.81	7.62	9.18	7.18	6.95	7.53	8.82	3.92	40.16
Year	1898	1896	1896	1871	1912	1892	1874	1892	1907	1869	1900	1893	1892
Min.	0.59	0.20	0.20	0.30	0.00	0.42	1.12	0.37	0.10	0.45	0.52*	0.17	18.82
Year	1888	1888	1904	1881	1903	1912	1888	1876	1903	1895	1904	1886	1908
Av. 45 yrs.	1.98	1.62	2.09	1.63	2.40	2.86	3.70	3.28	2.85	2.40	2.27	1.77	28.85

*Interpolated.

PLATTSBURG BARRACKS, N. Y. Elevation, 186 feet.
Record 1840 to 1852 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	2.84	2.67	5.05	5.25	7.13	5.48	5.09	6.46	6.25	7.64	3.49	7.25	43.90
Year	1845	1845	1840	1840	1850	1843	1843	1844	1840	1850	1845	1850	1850
Min.	0.47	0.20	0.28	0.62	0.80	2.15	0.95	1.31	0.70	0.50	1.47	0.74	29.02
Year	1842	1840	1850	1846	1842	1845	1849	1845	1849	1941	1841	1843	1842
Av. 7 yrs.	1.40	1.31	2.45	2.71	3.73	3.59	3.75	3.50	4.19	4.05	2.89	2.52	36.09

POUGHKEEPSIE, N. Y. Elevation, 80 feet.
Record 1830 to 1833; 1835 to 1836; 1841 to 1847; 1849; 1890 to 1900; 1928 to 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1830	2.46	2.13	4.85	2.07	5.32	4.24	5.85	1.50	1.46	3.61	7.00	5.85	46.34
1831	2.50	3.50	3.50	5.85	3.40	4.22	3.81	8.67	4.48	6.08	2.45	1.27	49.73
1832	4.88	3.22	4.12	3.20	3.27	0.82	4.98	8.26	3.80	3.73	3.65	3.46	47.39
1833	2.62	1.53	2.13	1.75	4.08	4.62	3.26	4.45	2.52	8.64	2.88	2.04	40.52
1835	3.55	1.28	2.74	5.03	1.66	2.91	2.89	1.47	0.89	1.59	2.19	2.78	28.98
1836	6.14	2.62	0.87	2.28	1.26	4.73	4.31	1.54	1.49	2.67	2.07	4.50	34.48
1841	4.87	0.75	1.73	3.64	1.47	3.03	0.94	4.15	1.47	2.07	3.02	2.51	29.65
1842	1.37	3.00	2.71	4.25	2.62	3.98	5.60	4.13	3.75	1.05	3.05	2.60	38.11
1843	2.13	1.05	3.08	2.92	1.37	4.78	2.45	8.25	4.62	8.20	3.50	0.95	43.30
1844	3.93	1.15	4.23	1.05	5.05	4.55	8.45	2.45	2.45	4.53	1.51	3.86	43.21
1845	4.45	2.46	3.54	2.58	1.14	2.10	2.36	2.76	3.00	2.26	5.15	2.65	34.45
1846	2.20	1.41	2.83	1.07	5.16	2.16	4.20	4.09	0.20	2.41	6.67	3.11	35.51
1847	3.30	3.50	2.10	0.92	3.22	3.67	1.92	2.35	3.23	1.92	0.89	6.46	33.48
1849	0.45	1.42	2.71	0.96	6.36	1.24	0.49	3.39	0.83	5.58	3.33	1.91	28.67
1890	2.63	3.32	5.51	1.57	4.80	2.45	5.08	5.71	4.57	4.34	0.80	4.00	44.78
1891	6.65	4.45	2.91	2.16	1.66	2.14	5.24	4.12	1.13	1.79	2.11	3.59	37.95
1892	5.35	1.44	2.82	0.60	6.05	3.05	4.19	7.20*	1.37	0.88	5.96	1.21	40.12
1893	2.35	6.78	3.12	2.98	7.06	1.49	1.66	4.11	3.43	2.75	1.83	3.49	41.05
1894	2.38	3.05	1.21	1.32	5.12	1.71	2.81	1.04	4.52	5.99	2.89	4.12	36.16
1895	3.39	0.90	1.71	3.54	1.99	1.53	2.24	3.49	1.34	4.42	2.86	2.92	30.33
1896	0.88	5.98	6.20	1.11	2.50	2.71	3.33	2.28	5.70	2.66	1.45	1.67	36.47
1897	1.62	2.66	3.00	1.30	3.36	4.25	9.37	2.81	1.83	0.13	5.45	4.57	40.35
1898	5.27	3.22	2.43	2.96	4.74	1.53	3.20	8.85	2.21	3.18	4.78	2.14	44.51
1899	2.37	4.26	5.55	0.20	1.27	1.74	5.56	0.16	4.99	0.82	2.13	0.89	29.94
1900	1.88	6.25*	3.32	0.28	3.41								
1928				5.17	3.54	7.83	7.19	9.05	1.84	0.61	2.37	0.51	
1929	3.02	3.53	3.15	7.48	3.24	1.89	1.79	3.56	2.27	3.74	2.70	3.93	40.30
1930	1.99	2.48	2.65	0.89	2.80*	3.43	1.87	4.37	7.43	1.77	3.97	1.00	34.65
1931	2.20	2.74	2.62	4.35	4.69	5.26	4.68	4.79	1.75	1.55	1.95	3.29	39.87
1932	3.95	1.99	5.07	2.59	3.55	3.75	2.89	5.61	1.10	5.59	8.31	1.53	45.93
1933	2.05	3.48	4.86	6.03	1.86	1.17	3.12	8.71	6.18	2.26	0.89	3.31	43.92
1934	3.02	2.20	2.95	4.47	4.91	3.34	6.72	2.35	9.89	2.20	3.13	1.95	47.13
1935	3.32	2.45	1.84	3.08	1.79	3.45	3.56	1.29	2.92	2.35	4.83	1.09	31.97
1936	3.94	2.86	4.99	3.38	2.48	3.38	4.34	6.99	3.13	3.19	1.71	4.66	45.05
1937	6.42	1.86	2.73	4.51	4.08	6.38	2.95	3.91	3.11	2.96	2.92	2.32	44.15
1938	2.95	1.55	1.61	2.06	4.39	5.95	7.08	5.97	9.85	1.83	2.14	2.51	47.89
Av. 34 yrs.	3.25	2.65	3.18	2.77	3.46	3.16	3.92	4.26	3.32	3.20	3.24	2.89	39.30
1939	2.26	3.78	2.75	4.28	1.18	2.48	2.70	2.04	2.24	4.27	1.32	1.22	30.52
1940	0.98	2.01	3.66	4.69	5.58	3.33	4.45	3.13	2.64	2.00	4.35	2.88	39.70
1941	2.17	2.22	0.95	0.78	1.64	4.80	5.01	2.39	0.87	1.78	1.92	2.64	27.17

*Interpolated.

RIFTON, N. Y. Elevation, 190 feet.
Record January 1922 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1922	3.37	2.42	4.81	2.77	3.74	7.04	5.12	5.28	1.34	2.38	0.88	3.97	43.12
1923	7.30	2.33	2.65	2.61	2.46	3.17	4.53	3.98	4.27	4.86	4.86	5.57	48.59
1924	3.92	3.01	0.69	6.43	5.45	2.18	2.41	2.32	5.56	0.10	3.58	2.12	37.77
1925	3.45	2.24	5.25	2.34	2.99	2.55	4.41	2.87	4.70	3.23	4.17	1.86	40.06
1926	1.46	4.39	1.83	2.42	1.97	2.82	5.06	5.22	2.86	7.05	4.12	2.79	41.99
1927	4.98	3.87	1.56	2.29	5.26	2.31	6.01	5.75	4.74	4.90	7.85	5.32	54.84
1928	2.34	3.17	2.57	5.95	2.66	8.11	7.50	8.42	2.77	0.07	2.65	0.48	46.69
1929	3.94	3.88	3.06	8.71	3.34	4.77	2.46	5.17	2.00	4.46	3.16	4.01	48.96
1930	2.13	2.11	4.32	2.25	3.88	4.85	2.81	3.32	4.78	1.74	6.34	2.10	40.63
1931	3.21	2.97	3.28	4.72	4.69	5.19	6.28	4.76	2.10	2.58	1.46	2.62	43.86
1932	5.04	2.43	4.15	2.81	3.01	7.53	3.74	5.36	0.78	6.62	9.28	1.48	52.23
1933	1.86	3.37	5.41	6.90	2.04	2.23	1.35	12.42	10.32	4.03	1.37	2.88	54.18
1934	2.75	2.19	3.68	5.52	4.97	4.15	4.62	2.89	8.62	2.45	4.27	2.98	49.09
1935	3.26	2.26	1.76	3.57	2.04	4.94	2.51	1.59	2.83	2.43	6.65	0.72	34.56
1936	6.15	2.71	5.84	4.08	2.79	4.03	3.44	6.88	1.68	4.38	2.34	5.39	49.71
1937	5.57	2.42	3.34	4.33	5.33	5.82	3.57	7.54	5.21	3.81	4.78	2.96	54.68
1938	4.12	1.73	1.81	2.40	3.71	7.47	7.93	5.54	11.96	2.68	2.80	3.84	55.99
Av. 17 yrs.	3.82	2.79	3.29	4.12	3.55	4.66	4.34	5.25	4.50	3.40	4.15	3.01	46.88
1939	3.18	4.12	3.22	5.66	1.74	3.43	0.92	6.47	2.97	3.97	1.89	1.97	39.54
1940	2.19	3.67	5.64	5.85	5.73	3.80	1.50	4.06	2.51	2.38	5.48	3.09	45.90
1941	2.45	2.56	1.99	1.34	2.11	5.04	4.42	2.88	0.63	1.65	2.55	3.64	31.26

ROSLYN (LONG ISLAND), N. Y. Elevation, 215 feet.
Record January 1912 to December 1930 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.51	5.91	9.98	6.41	5.57	7.93	6.25	10.11	6.45	8.47	6.03	5.62	60.05
Year	1923	1915	1912	1924	1924	1922	1926	1927	1918	1927	1927	1912	1927
Min.	0.94	2.44	1.00	2.06	1.85	1.35	1.41	1.15	0.27	0.00	0.86	1.41	37.11
Year	1928	1917	1915	1925	1923	1912	1924	1916	1914	1923	1917	1928	1916
Av. 14 yrs.	3.85	3.67	3.73	3.69	3.59	3.97	3.86	4.91	3.61	3.54	3.01	3.74	45.17
1929	3.57	5.19	4.73	5.49	4.26	1.14	0.29	1.14	3.15	3.82	2.95	2.98	38.71
1930	2.08	3.57	1.65	2.26	3.48	4.19	2.51	3.39	2.28	2.36	6.51	1.53	35.51

SCARSDALE, N. Y. Elevation, 240 feet.
Record January 1904 to December 1908; January 1910 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.76	6.27	10.05	7.70	6.12	9.04	9.25	11.30	8.09	9.72	6.79	6.54	64.97
Year	1923	1926	1912	1910	1924	1928	1922	1927	1920	1927	1927	1911	1927
Min.	1.65	1.30	0.80	0.80	1.11	0.55	0.88	1.27	0.35	0.26	0.30	1.19	19.80
Year	1922	1922	1915	1908	1905	1908	1907	1907	1914	1924	1908	1908	1908
1929	3.65	3.88	3.56	6.22	3.79	2.52	1.20	1.72	4.53	3.81	2.65	3.14	40.67
1930	1.53	1.88	2.47	2.24	3.36	5.01	3.11	4.20	1.70	1.26	4.91	1.76	33.43
1931	1.45	1.78	3.36	4.91	5.87	4.48	3.52	3.43	1.42	3.72	0.80	1.88	36.62
1932	3.62	2.43	4.03	2.44	1.75	3.42	2.31	2.17	1.48	5.12	7.43	1.48	37.68
1933	1.71	2.54	4.63	6.03	3.10	3.41	2.83	9.49	7.93	2.39	0.42	2.77	47.25
1934	2.76	3.11	3.40	3.41	5.62	2.62	3.33	3.52	12.16	2.80	2.88	2.25	47.86
1935	3.32	1.91	2.17	1.49	1.10	4.87	2.66	1.98	4.10	1.74	3.55	1.00	29.89
1936	6.17	1.28	7.08	3.98	2.70	7.58	3.02	3.25	4.02	3.14	1.02	7.26	50.50
1937	5.99	2.77	3.56	4.96	3.45	4.14	3.85	7.45	4.55	6.73	4.90	2.37	54.72
1938	4.23	1.30	1.95	2.88	4.19	7.45	12.17	3.74	12.01	1.87	3.58	3.45	58.82
Av. 34 yrs.	3.63	3.05	3.51	3.55	3.45	3.80	4.37	4.48	4.06	3.39	3.19	3.32	43.80
1939	3.48	5.17	4.17	4.18	1.19	4.82	2.86	6.00	2.79	4.94	1.80	1.90	43.30
1940	2.03	2.23	5.33	6.35	7.99	4.54	2.06	6.71	3.47	3.34	4.25	2.39	50.69
1941	2.11	* 2.91	2.32	1.59	4.64	5.08	6.33	7.37	0.32	2.45	3.45	5.46	44.03

SETAUKET (LONG ISLAND), N. Y. Elevation, 40 feet.
Record January 1886 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.23	7.11	8.15	8.23	8.30	7.84	18.18	13.05	7.84	10.20	8.22	9.43	59.26
Year	1915	1893	1899	1901	1898	1903	1897	1927	1918	1890	1892	1901	1897
Min.	1.35	0.69	0.41	1.02	0.10	0.57	0.40	0.85	0.23	0.23	0.43	1.56	33.56
Year	1916	1901	1915	1896	1887	1912	1924	1902	1914	1924	1917	1892	1910
1929	4.06	4.25	5.02	6.58	6.07	2.02	1.75	1.26	4.56	4.04	2.95	3.76	46.32
1930	2.41	3.51	1.83	2.48	4.51	2.62	2.34	1.55	1.16	2.61	7.13	3.33	35.48
1931	2.92	2.25	4.42	3.99	5.76	3.45	4.44	6.14	1.48	3.08	1.05	2.56	41.54
1932	4.69	2.55	5.74	1.99	2.87	2.84	1.75	1.58	3.66	4.15	6.68	2.46	40.96
1933	2.02	3.69	5.66	5.13	2.22	2.18	1.15	8.21	8.32	1.83	1.58	3.50	45.49
1934	3.48	4.34	3.38	5.57	4.30	2.73	2.06	2.89	6.30	5.38	3.36	3.85	47.64
1935	6.02	3.39	2.22	2.43	2.17	3.00	2.21	1.45	5.21	2.06	4.43	0.85	35.44
1936	6.89	3.12	5.10	4.79	2.29	7.71	2.76	2.19	5.44	3.92	1.48	7.04	52.73
1937	5.69	1.86	4.16	4.50	1.75	3.39	3.53	3.05	3.39	4.71	5.35	1.86	43.24
1938	3.88	2.02	2.32	3.66	4.21	6.14	6.06	2.15	13.15	2.02	3.53	2.20	51.34
Av. 53 yrs.	3.98	3.76	4.07	3.77	3.47	3.05	3.95	4.13	3.80	3.86	3.60	3.80	45.24
1939	3.95	6.05	4.51	4.38	1.17	2.31	2.01	4.49	1.44	5.57	2.79	2.89	41.56
1940	2.73	3.48	5.41	5.17	4.75	3.10	2.75	5.09	2.94	2.14	5.30	2.26	45.12
1941	3.13	2.65	3.17	1.56	2.10	5.87	4.56	3.77	0.77	2 15	2.67	3.79	36.19

SOUTHAMPTON (LONG ISLAND), N. Y. Elevation, 36 feet.
Record January 1901 to December 1918 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1901	3.20	0.55	5.78	6.84	5.61	1.10	4.13	5.48	4.10	2.47	2.01	8.11	49.38
1902	1.15	5.40	6.09	3.68	0.80	6.19	3.76	1.84	8.94	5.97	1.63	7.47	52.92
1903	3.75	3.55	6.82	4.19	1.26	4.67	1.66	7.37	1.24	3.42	1.48	3.70	43.11
1904	4.23	2.94	2.79	7.17	2.48	3.87	2.49	6.17	1.75	2.29	2.78	6.38	45.34
1905	4.75	2.65	3.21	2.28	2.65	3.31	3.45	5.97	6.92	2.57	1.62	5.41	44.79
1906	3.79	3.15	5.81	4.27	7.95	1.79	4.60	2.85	0.96	6.57	1.84	3.14	46.72
1907	5.15	3.66	3.50	2.48	5.37	2.59	0.99	1.78	3.64	2.30	6.09	6.39	43.94
1908	4.42	5.15	3.44	2.19	3.57	1.50	1.55	2.65	1.15	3.12	1.20	4.86	34.80
1909	4.24	6.09	2.88	7.31	2.65	2.26	2.54	3.67	2.82	1.68	2.54	4.07	42.75
1910	6.46	3.20	1.70	2.63	2.14	3.92	2.07	1.47	1.17	3.06	5.14	4.05	37.01
1911	3.58	3.29	3.71	5.80	1.23	3.70	2.47	7.16	2.27	4.23	8.65	4.20	50.29
1912	3.11	2.84	9.72	5.00	3.16	0.22	3.29	2.93	1.51	0.76	3.05	7.27	42.86
1913	4.93	3.44	4.05	8.78	2.90	1.03	0.78	4.62	3.99	6.44	2.03	3.63	46.62
1914	3.94	4.16	3.97	4.29	2.72	1.71	4.88	2.67	0.65	3.08	3.01	4.87	39.95
1915	8.83	5.61	0.51	2.48	4.43	1.54	2.20	6.79	3.33	3.54	2.08	5.99	47.33
1916	1.54	5.05	5.06	2.79	4.31	4.01	8.49	0.69	1.50	1.88	2.48	3.99	41.79
1917	3.14	2.52	6.59	3.10	2.65	2.98	3.23	1.92	3.64	4.57	0.21	2.15	36.70
1918	2.52	1.82	1.58	3.67	2.71	4.97	3.02	3.30	2.99	1.06	2.44*	4.06*	34.14
Av. 18 yrs.	4.04	3.61	4.29	4.39	3.26	2.85	3.09	3.85	2.92	3.28	2.79	4.99	43.36

*Interpolated.

SOUTHEAST RESERVOIR, N. Y. Elevation, 340 feet.
Record January 1896 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	8.09	7.77	7.01	7.61	7.89	11.35	11.15	13.94	10.58	10.49	6.34	8.64	64.32
Year	1910	1900	1902	1901	1898	1903	1897	1898	1907	1913	1898	1901	1901
Min.	1.30	0.79	0.19	1.48	1.08	1.14	1.95	0.32	0.35	0.14	0.70	1.06	35.76
Year	1896	1901	1915	1896	1905	1913	1911	1899	1914	1924	1917	1928	1917
1929	4.29	3.22	3.39	6.79	5.04	2.08	2.96	3.04	2.53	5.00	2.43	4.31	45.08
1930	3.17	2.15	2.93	3.01	2.97	7.01	4.03	3.56	3.88	1.80	4.77	2.51	41.79
1931	2.18	2.61	3.78	4.63	5.77	8.34	3.03	4.13	2.57	2.54	1.32	3.05	43.95
1932	4.36	2.56	4.57	3.39	2.83	3.52	3.56	5.12	2.62	5.11	8.83	2.11	48.58
1933	1.86	3.49	4.11	5.53	2.70	1.84	3.39	10.29	5.85	3.05	1.12	3.34	46.57
1934	3.99	3.67	4.20	3.47	5.44	4.83	3.66	1.83	10.48	2.82	3.91	2.48	50.78
1935	3.82	2.78	2.70	2.07	1.98	5.08	4.14	1.33	2.88	1.26	3.22	1.12	32.38
1936	6.57	3.65	6.75	2.58	2.93	5.75	3.86	4.28	5.15	2.48	1.35	6.05	51.40
1937	6.87	2.41	2.73	3.83	4.20	5.25	1.92	7.74	4.89	5.43	4.19	2.44	51.90
1938	4.00	2.31	1.96	2.92	3.32	5.15	7.80	5.63	12.60	2.18	3.04	3.66	54.57
Av. 43 yrs.	3.71	3.50	4.00	3.71	3.85	4.03	4.53	4.77	4.28	3.62	3.36	3.59	46.95
1939	3.58	4.37	4.37	5.70	0.71	3.02	1.87	4.64	4.58	4.67	1.98	2.23	41.72
1940	2.51	2.41	5.29	4.91	5.85	3.29	2.80	3.82	2.48	2.15	4.46	2.53	42.50
1941	2.36	2.68	1.82	1.12	2.34	4.64	12.03	2.79	0.85	2.69	2.63	4.69	40.64

SPIER FALLS, N. Y. Elevation, 400 feet.
Record October 1901 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	5.71	7.15	10.37	7.20	6.63	7.83	10.88	5.97	7.61	7.29	6.73	6.11	46.18
Year	1923	1909	1913	1914	1910	1925	1919	1914	1907	1917	1927	1902	1925
Min.	1.02	1.29	T	0.78	0.44	0.27	1.05	0.85	1.02	0.34	0.26	1.23	31.47
Year	1921	1907	1915	1927	1903	1912	1913	1907	1928	1924	1904	1926	1916
1929	2.49	2.83	3.94	6.88	4.28	4.97	2.18	2.18	4.54	2.58	2.62	4.84	44.33
1930	3.27	0.90	3.95	1.43	3.21	4.89	3.31	1.87	2.66	0.97	3.45	1.40	31.31
1931	2.55	1.99	2.10	3.54	4.03	4.77	7.65	3.60	4.73	1.31	1.53	4.09	41.89
1932	2.99	1.85	2.72	2.96	2.02	2.23	4.03	3.04	1.56	4.70	7.13	1.07	36.30
1933	1.67	2.80	3.71	4.65	1.48	2.87	2.79	8.37	2.59	2.54	1.31	2.90	37.68
1934	3.74	1.15	1.98	4.01	1.31	3.96	2.71	1.78	5.70	1.28	1.95	2.60	32.17
1935	5.37	2.23	1.36	1.90	1.68	6.06	14.58	2.26	2.86	1.57	5.72	1.45	47.04
1936	4.43	1.66	7.54	5.46	2.42	0.69	2.20	3.13	0.81	6.54	2.51	3.51	40.90
1937	4.91	2.02	1.75	3.02	4.60	5.29	2.41	3.00	1.92	2.49	3.43	2.95	37.79
1938	3.45	1.81	1.28	2.42	1.97	1.53	3.99	3.20	8.49	1.21	2.52	4.13	36.00
Av. 37 yrs.	3.05	2.77	3.25	3.12	3.05	3.72	3.95	3.20	3.41	3.19	2.96	3.10	38.77
1939	2.78	3.26	2.42	5.42	2.23	2.33	1.24	4.26	2.51	2.74	1.33	1.81	32.33
1940	1.50	4.06	5.14	5.08	3.44	2.88	3.99	1.68	2.87	1.68	4.64	4.75	41.71
1941	2.02	2.08	1.57	0.33	0.56	3.38	4.99	2.50	3.29	2.73	2.97	3.82	30.24

TROY, N. Y. Elevation, 86 feet.
Record 1911 to 1934 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	2.88	3.89	4.33	5.18	4.79	8.07	4.81	4.89	6.20	5.77	7.99	5.72	37.42
Year	1918	1916	1922	1924	1919	1922	1928	1918	1924	1911	1927	1915	1920
Min.	0.60*	0.80	0.53	0.85	0.49	0.81	1.13	1.64*	0.70*	0.10	0.72	0.56	26.88
Year	1921	1923	1924	1927	1926	1919	1922	1913	1914	1924	1917	1928	1921
1929	2.39	4.23	2.33	6.25	3.11	2.98	1.54	1.30	3.28	2.41	2.53	2.87	35.22
1930	2.29	1.53	2.76	2.34	4.14	2.95	3.25	1.50	2.18	1.75	2.52	0.74	27.95
1931	2.54	1.71	1.31	1.74	5.96	4.70	7.27	2.16	3.12	1.95	1.60	2.69	36.75
1932	1.71	1.25	2.44	1.71	2.52	3.74	5.08	3.73	1.53	5.01	5.41	1.49	35.62
1933	1.84	1.97	3.89	4.67	3.09	3.28	3.16	7.14	7.78	3.37	1.04	2.18	43.41
1934	1.86	2.89	2.93	2.12	2.15	5.77	2.74	2.95	5.17	1.87	1.87	1.16	33.48
Av. 22 yrs.	1.90	2.16	2.65	2.88	2.96	3.18	3.28	3.17	3.34	2.65	2.87	1.86	32.90

*Interpolated.

WAPPINGERS FALLS, N. Y. Elevation, 110 feet.
Record January 1891 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	7.75	7.05	7.84	9.07	7.65	20.63	11.84	11.87	9.70	11.66	7.52	9.25	82.06
Year	1891	1893	1896	1901	1898	1903	1897	1903	1899	1903	1927	1902	1903
Min.	1.36	1.23	0.38	0.61	1.52	1.01	1.36	1.17	0.44	0.19	0.52	1.09	34.05
Year	1896	1895	1915	1892	1911	1894	1912	1894	1914	1924	1917	1928	1895
1929	2.78	3.85	3.59	6.93	3.74	2.57	1.89	4.19	3.52	4.40	2.72	3.90	44.08
1930	2.22	2.55	2.46	1.51	2.80	3.60	3.33	4.92	5.25	1.56	4.38	2.45	37.03
1931	2.43	2.55	2.71	4.83	4.40	5.44	4.03	4.24	2.14	2.39	1.16	2.89	39.21
1932	3.56	2.28	4.59	2.43	5.21	2.68	3.70	4.40	1.43	4.17	6.64	1.84	42.93
1933	2.02	3.52	4.73	4.69	2.03	1.33	3.14	11.11	6.31	2.06	0.98	3.07	44.99
1934	3.15	3.26	3.31	3.97	5.51	2.93	6.85	2.08	8.76	2.49	3.28	1.68	47.27
1935	3.27	2.64	2.22	2.31	1.65	4.64	2.25	0.91	2.55	1.50	4.40	1.05	29.39
1936	5.26	2.73	4.83	2.64	3.70	3.77	2.58	5.90	2.99	4.07	1.99	5.12	45.58
1937	5.40	1.70	2.76	2.76	5.80	6.39	2.75	5.39	4.10	2.68	2.40	2.37	44.50
1938	3.72	1.75	1.63	3.02	4.04	5.93	11.80	6.12	10.37	1.83	2.52	2.81	55.54
Av. 48 yrs.	3.51	3.55	3.52	3.56	4.06	4.00	4.54	4.67	3.91	3.58	3.25	3.41	45.56
1939	2.65	4.04	3.71	5.34	2.46	2.35	1.79	3.59	3.34	4.85	1.57	1.73	37.42
1940	1.09	2.73	4.79	4.66	4.38	3.51	3.46	3.04	6.06	2.26	3.96	2.75	42.69
1941	2.62	2.40	1.75	0.84	3.10	5.79	4.97	3.71	0.57	2.08	2.20	3.33	33.36

WEST POINT, N. Y. Elevation, 386 feet.
Record January 1840 to December 1859; January 1865 to December 1899; January 1905 to December 1941 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	9.95	7.29	12.02	10.53	11.66	7.37	13.05	11.90	13.50	10.25	10.02	6.97	63.56
Year	1841	1893	1896	1854	1868	1848	1897	1867	1882	1855	1846	1878	1853
Min.	0.82	0.63	0.52	0.50	0.57	0.76	1.04	0.05	0.17	T	0.25	0.83	30.64
Year	1851	1856	1915	1844	1911	1873	1894	1876	1846	1892	1922	1867	1872
1929	3.52	4.66	2.44	7.25	2.51	0.94	3.98	1.24	2.79	4.11	2.37	4.28	40.09
1930	2.34*	2.74*	2.85*	2.97	2.69	3.10	1.35	2.41	1.12	1.28	4.76	1.46	29.07
1931	0.92	2.45	2.70	4.95	3.47	3.74	2.58	2.91	1.92	1.35	0.70	2.30	29.99
1932	3.61	2.01	4.66	2.62	2.89	3.54	3.03	3.59	1.70	5.48	8.30	1.35	42.78
1933	1.72	2.98	4.49	5.22	2.79	1.23	2.47	11.40	5.62	2.11*	0.86	3.59	44.48
1934	3.60	2.88	4.31	3.64	5.93	4.11	5.47	2.33	8.17	3.07	4.19	2.20	49.90
1935	1.88	2.37	2.26	2.49	3.24	4.47	3.68	1.77	3.08	1.77	3.78	0.88	31.67
1936	5.59	2.98	6.94	2.98	3.00	3.91	2.75	3.84	3.65	3.61	1.52	6.08	46.85
1937	6.13	2.31	2.38	4.09	5.49	5.56	3.96	6.39	4.67	3.21	3.39	2.88	50.46
1938	3.41	2.18	1.77	2.55	3.97	6.07	7.72	4.91	10.74	1.73	2.85	4.30	52.20
Av. 89 yrs.	3.45	3.62	3.54	3.67	4.20	4.25	3.61	4.20	3.73	3.63	3.35	3.50	44.75
1939	3.17	4.82	3.95	6.18	1.42	5.05	2.50	3.14	3.46	4.08	1.67	2.00	41.44
1940	2.58	2.58	6.30	5.96	4.67	3.02	3.36	3.22	2.87	2.13	4.11	2.77	43.57
1941	1.96	2.69	2.46	1.48	2.04	5.07	7.10	3.41	0.42	2.03	2.61	3.93	35.20

*Interpolated.

YONKERS, N. Y. Elevation, 140 feet.
Record January 1878 to December 1940 inclusive.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Max.	11.80	13.33	13.25	9.82	8.97	13.16	22.72	16.53	14.70	14.14	8.84	10.08	85.16
Year	1884	1885	1912	1901	1908	1903	1889	1903	1882	1902	1889	1901	1903
Min.	0.62	0.00	0.12	0.20	0.00	0.25	0.46	0.41	0.25	0.09	0.55	0.62	25.19
Year	1911	1895	1915	1896	1887	1901	1924	1923	1914	1920	1908	1896	1918
1929	4.36	7.53	3.58	7.74	4.11	1.79	3.67	1.45	4.82	5.11	1.54	5.93	51.63
1930	2.83	1.70	2.47	3.13	3.68	4.05	3.84	4.48	2.08	1.47	5.43	2.28	37.44
1951	2.73	3.46	3.90	5.09	4.99	4.22	2.92	3.34	2.10	3.09	0.74	2.43	39.01
1932	4.42	3.28	6.37	2.34	1.72	2.63	2.25	2.01	1.67	5.00	6.64	2.00	40.33
1933	1.90	1.29	4.95	5.52	3.69	3.43	3.54	8.82	6.51	2.48	0.75	1.89	44.77
1934	4.06	0.20	5.13	3.77	6.05	3.64	3.24	3.56	12.85	2.92	2.42	2.37	50.21
1935	2.06	1.29	2.23	1.19	0.86	4.67	4.10	2.41	4.04	2.00	3.43	0.10	28.38
1936	3.36	1.84	6.69	3.51	3.72	7.40	3.07	3.81	3.69	3.62	0.97	7.52	49.20
1937	5.83	2.89	2.48	6.43	2.77	4.70	3.11	7.68	2.94	4.22	5.47	2.56	51.08
1938	4.44	1.76	2.40	4.95	3.45	8.91	10.13	3.27	9.93	1.94	1.89	3.98	57.05
Av. 61 yrs.	4.22	3.74	4.10	3.73	3.64	3.82	4.98	4.87	3.97	4.03	3.21	3.71	48.02
1939	2.51	3.33	3.95	3.89	0.31	4.32	1.24	6.42	1.10	4.47	1.74	1.89	35.17
1940	3.15	1.41	5.40	5.93	7.33	3.29	2.16	6.02	3.43	2.44	4.21	2.51	47.28

PROCEEDINGS

May 1943 Meeting

Hotel Statler, Boston, Mass.

Thursday, May 20, 1943

Vice-President Horace L. Clark in the chair.

The Chairman announced the death of Raymond M. Simon, Representative of the R. D. Wood Co.

Secretary Gifford announced the election by the Executive Committee of the following new member:

Frederick Timpson, Assistant Superintendent, East Greenwich, Rhode Island.

Talks on "The New Regional Utility Inventory Control Office" were given by R. J. Daniels, General Storekeeper, New England Power Association Properties, and Ralph E. Walters, Regional Utility Engineer, Regional Utility Inventory Control Office, Office of War Utilities, War Production Board.

The discussion was participated in by Warren J. Scott, Chairman Clark, Howard C. Mandell, Harold L. Griswold, John H. Robinson, A. A. McAlary, Sidney S. Anthony, Donald C. Calderwood, and Roger W. Esty.

PRELIMINARY REPORT OF THE COMMITTEE ON POST WAR ACTIVITIES

Mr. President and Members of the New England Water Works Association: At the 1942 Convention of the Association, the Executive Committee was authorized to appoint a Committee on Post War Activities, which authorization was duly acted upon, and a Committee appointed. This Committee now presents a preliminary report as follows:

REPORT

General. In planning for post-war activities in the water works field, the primary objective of the authorities in charge of water works systems should be the local and specific benefits. A reasonable amount of weight should be placed on broader objectives, but hard common sense should be the guide. Individual responsibility needs to be stressed now more than individual rights. Centralized Federal controls should be reduced to the minimum and dependence on Federal subsidies given up, when such subsidies are not essential. Local self-government should prevail in local problems, and national government should be confined to national problems.

Local communities and private business should look ahead and plan, in so far as possible, to prevent or reduce unemployment at the close of the war. Water works men can and should play a part in the program looking towards alleviation of the post-war problems.

The following suggestions as to what can be done in the water works field are presented as a preliminary and tentative program.

Program for Water Works Officials.

1. Employees returned from the armed services should be restored to payrolls in so far as practicable.
2. Investigations of the condition of water works systems with respect to need for repairs and overhauling should be inaugurated.
3. Maintenance work, such as painting hydrants and standpipes and repair of valves, which probably has been interrupted during the war, should be resumed.

4. Reinforcement of distribution systems should be provided.

5. The carrying capacity of mains should be restored by cleaning alone or by cleaning and lining.

6. Undersized mains should be replaced by mains of adequate capacity.

7. Increased storage should be provided on distribution systems with particular reference to the lessons taught by wartime experiences abroad.

8. Needed extensions of mains should be made.

9. Obsolete pumping equipment should be scrapped and new equipment provided.

10. Obsolete office systems should be replaced by modern methods.

11. Records, if incomplete, should be brought up to date.

12. Complete and accurate maps of water works systems should also be brought up to date.

13. Construction and shop equipment should be overhauled and repaired. Worn-out or obsolete equipment should be replaced.

14. Stocks of materials depleted as a result of the war should be brought back to normal.

15. Waste-water surveys should be put into effect.

16. Metering programs should be adopted where necessary.

17. Reforestation of watersheds should be extended.

18. Sanitation work on watersheds should also be expanded.

19. Additional sources of supply should be developed in those cases where existing supplies are inadequate.

20. Major improvements, such as new shops, new pumping stations, duplicate supply mains, filter plants and similar work, should be constructed where their need has been established.

Program for Manufacturers.

1. Former employees released from the armed forces should be reëmployed so far as possible.

2. Expenditure for carefully planned research should be increased.

3. Present products and equipment should be improved where improvements are needed and are possible.

4. New designs, materials and equipment should be investigated.

5. The possible use of materials such as plastics and laminated wood should be canvassed.

6. Chemical companies and manufacturers of construction materials should be educated as to the special requirements of the water works field and encouraged to provide better and more useful products.

7. Exhaustive tests on new developments should be carried out so that the inevitable difficulties therewith may be discovered and corrected before such developments are offered to the water works superintendent or engineer.

Program for the New England Water Works Association.

1. An educational campaign should be inaugurated to assist its members as well as other water works men in New England in the carrying out of the objectives of the programs outlined above.

2. Papers and discussions on the subject of post-war activities should be encouraged.

3. Lists of needed water works improvements in the New England States should be prepared in coöperation with the respective state health departments.

4. Members engaged in local educational campaigns for needed water works improvements should be assisted.

Financial Aspects. Current water revenues in excess of current needs should be used for water works improvements. Bond issues should probably be used as sparingly as possible in view of the huge national debt. Federal grants in aid should not be accepted for water works systems where ample financial resources exist. This probably calls for more forbearance than can be expected. Nevertheless the principle is sound.

Conclusion. What any one community should undertake must be determined by local needs and financial ability. Each water works superintendent or manager should prepare and plan now for what he should do as soon as the war is over. To this end, he should start first to educate his commissioners, board, or directors, and then the public. He should secure the coöperation of other agencies such as state health departments, chambers of commerce, newspapers, fire underwriters' associations, veterans' organizations, and labor unions.

It is highly important that the public be thoroughly educated as to the importance of first-class water works systems.

It is essential that as much as possible of the preliminary ground work and planning be done prior to the war's conclusion in order that a minimum delay may occur in putting men back to work. The basic foundation of economic security is work for all who are able to work. Production of useful goods and services, and not unemployment insurance payments, is the key to increased individual and national wealth.

Respectfully submitted,

E. Sherman Chase, *Chairman*
Theodore Cate
Harold W. Griswold
Philip J. Holton, Jr.
Howard H. Potter
F. J. Reny
E. L. Tracy

March 18, 1943

Presentation and Discussion of the Report

May 20, 1943

Chairman E. Sherman Chase.* Copies of the preliminary report of the Committee on Post War Activities have been distributed. I will run through the report rather quickly and then throw the meeting open to discussion. The committee is hoping that it will receive from the general membership of the Association some ideas in addition to those which it has had itself.

There is one quotation which I would like to read from the New York *Times* of a few weeks ago. It is a statement made by Mr. Brown, President of the Johns Manville Corporation, at a meeting of the stockholders of that company. It is a good keynote for what this Association is trying to do in the way of post-war planning or in anticipating post-war activities, because what we are trying to do is really a small part of what many other people are talking about and planning on doing. Mr. Brown said:

"The eventual solution of post-war problems will not come from any one big plan but from thousands and thousands of small ones."

*Partner, Metcalf & Eddy, Consulting Engineers, Boston, Mass.

Our committee's activity is one of these thousands and thousands of small post-war planning projects. That may well be the text of this meeting. It is the small water works systems and the individual water works man who fits as one of these "thousands and thousands" of small planners.

(The Chairman then read extracts from the report.)

There is a good deal written nowadays on preparing for the post-war period. The May issue of the Journal of the American Water Works Association has an article by W. C. Miller, a Canadian, on "Canadian Planning for Postwar Reconstruction." Those of you who have not read it would do well to do so. Another article in the same issue, by J. R. McComas on "Post War Planning and Possibilities of Reduced Fire Insurance Premiums as a Factor in the Cost of Small Town Water Works Systems" is another worthwhile article to read.

The National Planning Association, which is made up of a group of labor, business and agricultural representatives, recently prepared a brief statement on national planning. Part of the statement is as follows:

"Post-war planning must be faced realistically. We must prepare now against unemployment during the reconversion period and for full continuing employment under a peacetime economy. The first goal of post-war planning should be a foundation for better living, for provision for enough jobs and lasting jobs."

Mr. Jesse Jones, Secretary of Commerce, has appointed a Committee on Economic Development with a regional chairman in each of the twelve Federal Reserve districts. Your committee has not as yet been in touch with the regional chairman for this district.

ARTHUR D. WESTON.* I do not quite agree with Mr. Chase as regards some aspects of the report. For instance, I am not as optimistic as he is in the matter of freedom from federal control of funds. The meeting which was held last January in New York on post-war planning, at which Mayor LaGuardia was present, emphasized pretty clearly the feeling of the political minds of the country. Mayor LaGuardia stated that at the present time they are preparing projects

*Chief Engineer, Massachusetts State Department of Public Health, Boston, Mass.

amounting to between three hundred and four hundred million dollars and expressed the opinion that federal funds would be necessary, as in his opinion no state or city could go ahead with such projects without federal funds.

As I look at it, if the richest city in the United States, and the city of the largest population, feels that it has to have federal funds in order to go along with post-war planning projects, that must be pretty well the attitude of the country as a whole. We do know that in many sections of the country, where millions of dollars were spent during the period of the depression on public works projects, by far the largest percentage of the funds on those projects came from other states, or, rather, came from the pool which was made available through taxes from the other states.

One federal agency which is particularly active at the present time on post-war planning is the National Resources Planning Board. I think all state sanitary engineers received a letter from Frank W. Herring, assistant director, under date of May 6, requesting estimates of the cost of filter plants or treatment plants used in connection with water supplies, where such plants did not exist at the present time. Our division has not yet answered that letter because we don't know how to approach the problem. There are certainly a good many water supplies in Massachusetts which, at least from an esthetic standpoint, should have filtration. Just how we could make an estimate that would be worthwhile in connection with those supplies, in the absence of consulting engineering reports, I do not know. The only way I could reply to that letter would be to guess at costs.

Another point which I would like to emphasize is that unless the planning for post-war projects is properly organized we are going to have the same chaos that we had during the depression. In other words, every agency has in mind its own group. If that agency is interested in sewerage, it is naturally going to push sewage disposal works and other sewerage construction.

I think there will be a tremendous activity under the direction of the Corps of Engineers in connection with highway construction: military roads. I have no authentic information available to me to back up my statement, but I have been told that over 50 per cent of contractor's heavy equipment in the country is in the hands of the

Corps of Engineers at the present time. This is a pretty good indication, in view of the record established in the construction of the Alaska Highway, as to how the Corps is inclined relative to large expenditures in that field. My statement is pretty well backed up by radio publicity recently given by the Roadbuilders' Association to the effect that certain highway construction was planned which ran into billions of dollars.

After all, there is only so much money available from the tax dollar for everything needing to be done in the country. That amount of money will probably be distributed according to the pressure of the demands for it. If the roadbuilders' group happens to be on top it will get the most money; if the armed forces, or the ship builders happen to be on top, they will get most of it.

There is nothing as important to the welfare of the country as water works as has been illustrated during the present war. In Massachusetts, there has been a great need of additional water works construction for a long time—long before the war started. I have always felt that a great many of the water works men, because of the fact that their funds have been taken away from them and have been used to lower the tax rates, have not built up their plants as they should.

I agree with this report that about the wisest thing that the New England Water Works Association can do at the present time is not only to educate the members of this Association as to the needs for post-war planning but to give that program the greatest publicity possible.

THE CHAIRMAN. Apropos of Mr. Weston's reference to federal funds being essential, it has always been a puzzle to me how the whole could be greater than the sum of all the parts. The sum total of federal funds can be no greater than those raised from the individual taxpayers, but if we do not spend the money which we raise ourselves in taxation for our own benefit those funds will go, as Mr. Weston points out, to some other state whose per capita taxes are less than ours.

This really leads us into a maze of economic complexities and a discussion of various phases of economics, such as quantity of money, the velocity of money, and so forth. The quantity of money may be fixed, but what is accomplished with the money depends upon

the rate at which it is transferred. It is not just a question of quantity of money that is available, but how fast it can be moved around in industry and commerce.

WALTER J. SHEA.* Those of us who have contacts with public municipal water works systems realize that many of these systems have been developed and operated for a long term of years without any planning, merely on a basis of temporizing from year to year. Unfortunately it seems to be an extremely difficult thing to impress sufficiently municipal officials as to the importance of planning improvements. Furthermore, it is difficult to fix responsibility in the municipalities when failure to plan results in public inconvenience or public health hazard.

The water works superintendent realizes the needs of his system, but it is difficult for him to get those needs across to the officials who make appropriations. Yet when you think about a water works system and the almost insignificant per capita investment and cost of operation involved, and the wonderful advantages of safe and decent water that can be derived from this small investment, you begin to think that we are not very good salesmen. The fellow trying to sell a sewage treatment plant does not have any of the advantages that the person does who is trying to sell a water system. Some of us who have tried to sell sewage treatment realize that. I wonder sometimes if the water works man realizes what he has to sell compared with what other people have to sell.

We have all seen the difficulties that have arisen from lack of planning water works systems. Many of us have to deal with public water supplies derived from surface sources where practically no property has been taken on the watershed. In Rhode Island we have a state law which says that the source of a drinking water supply must not be polluted; yet often when a surface supply is developed only a limited portion of the drainage area is purchased with the result that there may be a suburban development on a portion of the area where sewage disposal is extremely difficult. Then there is a menace to the public water supply. While the state enforcement agency is in the position to tell the occupants to abandon their houses, it is a highly impractical thing to do. Yet we know that similar condi-

*Acting Chief, Division of Sanitary Engineering, Rhode Island Department of Health.

tions occur with many public water supplies, but the time is not far off when corrective measures must be undertaken. It certainly is not adequate planning to permit such situations to arise.

There is one other thing that I want to discuss, and that is who shall do the planning. In the past few years there has been lots of so-called planning of a local, regional, and national scope. Yet too much of it, I think, has been gathering together existing information. This was a useful thing to do, but the stage of real planning was never really reached. In too many cases attempts at planning were being made by people quite unfamiliar with the things they were planning. It is not reasonable to expect that just anybody can plan water systems and water treatment plants. Therefore, one of the things we have got to do is to see that water works men have adequate representation on planning agencies and that planning of water works is dominated by them.

HORACE J. COOK.* I am inclined to agree with the chairman, that our planning is going to be the thing that is going to do the business, the planning of the small towns to put their men to work, and not some big WPA job that will take a hundred thousand men. It will be the small water works job and the small city job that will keep the men going. Instead of getting money from the United States Government in the state of Maine, we will be paying our own bills. The people of the state of Maine still believe in doing so.

In anticipation of post-war needs, it would be well for every water department to prepare a list of needed materials and equipment, so that orders may be all ready to send in just as soon as the war ends. This will help companies which are now doing war work to switch over immediately to peace-time production and keep their crews busy on the basis of such orders. Men now working in the war factories can then make pipe, fittings, valves, hydrants, and all the water works goods needed to make up deficiencies accumulated during the war. Then the men released from the armed services may go to work and not be on the loose without jobs.

We do not know what will be the situation in regard to shortages of materials and priorities at the end of the war. Of course we don't want to have such a demand for goods that it will be a case of grab-

*Superintendent, Auburn Water District, Auburn, Me.

bing from the other fellow. The government, I think, should continue to have some sort of a plan for allocation of goods and materials, so that we will know how to put in our orders.

Financing requires preparation also. It is always easier to finance for production in war time than it is after the war is over. Now is the time for water works men to prepare to issue bonds and have everything ready so that at a moment's notice the bonds can be put on to the market and the necessary money obtained. When the war is over and the first of the men released from the armed forces show up, the thing to do is to start with something that does not need much material for the first few weeks. Men could be put to work on the water sheds, reforestation, drainage, and other activities requiring little material and equipment. It seems to me that there is an opportunity to keep men working while the factories are being reconverted to civilian uses.

THE CHAIRMAN. Mr. Cook's reference to the financing problem brings to my mind the thought that during the war period municipal indebtedness is being decreased, and water works bonds are being retired. Should the war last long enough there may be no outstanding water works bonds at its end and water works utilities should be in an excellent position to undertake new financing. In general, as the federal indebtedness increases the municipal and state indebtedness is decreasing.

HOWARD H. POTTER.* Without wishing to get into any argument as to the merits or demerits of using federal funds, it should be pointed out, as I think we are beginning to realize, or if not we are soon going to, that taxes are going up all the time; that all the money that is being raised at present is being used to advance the war. There is a good deal of talk that, as soon as peace is signed, it is going to be the United States that will reconstruct and feed the countries that have been ravaged by the Hun. If that is so, it would seem to me that we are not only going to continue to pay high taxes during the war, but we are going to be paying high taxes and have a very limited amount of material for a good many years after this war is over. I question whether we are going to have the money handed to us from

*Sanitary Engineer, U.S.P.H.S. (R), 1st Civilian Defense Region, Boston, Mass.

the federal government. As Mr. Cook has said, we should devote our efforts to a large extent towards planning those things which are not going to be using material, because I don't thing material is going to be available for some time after the war.

WARREN J. SCOTT.† I notice that among the post-war activities listed in the report "Records, if incomplete, should be brought up to date. Complete and accurate maps of water works systems should also be brought up to date." It seems to me that perhaps we should bear in mind, as one qualification, that certainly our valve-location records and maps of the distribution system should be brought up to date right now, if they have not been. In my own state, through the efforts of our state and district water coördinators, a great deal has been done to better the keeping of valve-location records. In some cases, by the making of new maps of distribution systems the records have been kept up in good shape. However, these office records that are relatively unimportant, could be deferred until after the war.

In considering the use of federal funds, conditions vary greatly in regard to the necessity for water works construction in the different states. In my own state, as contrasted with Massachusetts, probably two-thirds of the water utilities are privately owned, so that the quesion of using federal funds has a somewhat different relation to the subject in that respect.

Mr. Weston mentioned the letter that apparently has gone out to all state sanitary engineers, in which the National Resources Planning Board asked for a rough estimate of the total cost of construction of projects that might be undertaken in the water works field after the war, with particular reference to new sources of supply and new water treatment plants. I have handled my answer in the same way as Mr. Weston; the letter is still on my desk, because the average state sanitary engineer hesitates to list a lot of projects on which he has no detailed engineering data, without referring to the local communities concerned. Certainly after the war, perhaps not immediately after the war, we are going to have an effort made to resume a program under which federal aid will be offered to municipalities.

I agree with a good many of the comments in the committee

†Director, Bureau of Sanitary Engineering, Connecticut State Department of Health, Hartford, Conn.

report, but I think there is going to be a very definite program on the part of some of the federal agencies, such as the National Resources Planning Board, to establish a list of projects. Now, if such a program is going forward, it would be a good deal better to prepare such a list ourselves than to have the list prepared for us, and I wonder if it might be worthwhile to have the committee consider whether it would be desirable, perhaps even at the expense of having a lot of members on the committee, to add to representatives of the state health departments, to canvass the members of the Association, and the superintendents in the different states, to see if they have any specific recommendations to make as to projects that might at some time be included. It might get people to thinking about what should be done in their various communities, at least.

In considering the types of work that might be undertaken, there is a good deal of room for personal opinion. For example, in the case of filtration plants, in most cases in New England our sources of supply are from relatively unpolluted sources, and treatment is frequently confined to chlorination. We have an increasing number of water filtration plants, but the vast bulk of our supplies is from chlorinated, unfiltered surface water supplies from clean watersheds. That is true in most of our New England states, and raises the question whether some of these supplies should or should not have the additional protection and benefit of filtration plants. Most of the filtration plants that have been built in my state have been built because the public wanted a more palatable water and a more attractive water with less color. Filter plants will furnish, incidentally, a high degree of protection from a health standpoint, but this will mean in many cases increased water rates. All those things enter into the planning, as to how far we should go and how fast we should go in recommending filtration plants to be built.

Education of the public, as the committee has pointed out, would be desirable. If there is one field in which the New England Water Works Association has not distinguished itself, it is the field of educating the public as to the value of water supply. Over the years, there has been a big opportunity for the Association in some way to develop a plan, whether it is through getting people paid out of our budget to carry on educational work, or whether it can be done other-

wise. I am rather inclined to think that the former method is the only method that is going to produce results. If you look through the files of the newspapers in this state, or any of the New England states, to see how much material is sent out to the public, as it should be, on the value of the water works system, and what value the water works superintendent and his assistants are to the community, you will find a very few inches of space devoted to the subject.

THE CHAIRMAN. I agree that we should try to get the water works industry across to the public. The suggestion about having in preparation a list of projects that might be undertaken in this section of the country is also excellent.

F. J. RENY.* I wonder sometimes if we are ever going to learn anything from history. Why I say that is this: In Portland during the last war and after the last war, we found that it was necessary to raise more money for needed improvements. We knew that the rate of interest was bound to increase because of the war. In spite of that fact, the money was not raised until after the war. Then it became necessary to sell the bonds at a considerable discount—95, or thereabouts—and the price received, together with the discount, and the 4½ per cent of interest, was considerably more than it would have been if thought had been given beforehand to raising the money.

That is one reason why we should today consider the financing of post-war activities as one of the very necessary things. We know that the bonds which are financing the war are considerable. However, that does not mean a great deal to the average individual; because when those bonds mature they will be refunded, in all probability, the same as all other bonds can be refunded, and we and our descendants shall pay our proper proportionate part of that tremendous national debt, and probably we shall never know that the bonds were issued. History teaches us, I claim, that we should take the opportune time to refund our bonds, if we can, and that we should take advantage of prevailing low rates of interest to raise the money we shall need to do this post-war work, in spite of the fact that we consider the national debt to be a great detriment. I do not consider it so, because it is easy to refund bonds. The Portland Water District has already refunded a

*Treasurer and General Manager, Portland Water District, Portland, Me.

third of its bonds at an interest rate which is a little more than half of the average. By so doing we have already anticipated for twenty years, at least, the time when money will be needed to do this post-war work. We claim this is good business. And it is, too, because the money most assuredly will be needed, and the time to borrow is when the interest rate is low. If you happen to be one of the tax exempt utilities your bonds will sell quickly and easily, and probably at a very much smaller interest rate than you are paying at the present time. These things have been done, and we know that they can be done.

I have often wondered whether we give publicity the value that we should give it. I think it has borne fruit in Portland because we have been able to build up an extensive water system and to reduce our bonded indebtedness at the same time. Publicity has played an important part in this accomplishment at Portland and I believe that proper publicity can bring us all a very great return if we have a mind to put a little effort into it.

I think that requests to customers for suggestions for improvements should be put into the water statements that go out. It might well be that the public will give us suggestions as to what we can do to improve our systems and what we can do in the way of post-war work.

THE CHAIRMAN. You all know that the Portland Water District is a water department which practices what it preaches in the way of publicity. Those of you who have had occasion to go through the railroad station at Portland have seen where the "purest" water in the state of Maine is dispensed free of charge.

This seems to be a good time to read another quotation from Mr. Brown's speech at the stockholders' meeting of the Johns-Manville Corporation before calling on Mr. Cairnes of the Federal Works Agency. Referring to "the quantity and quality of government questionnaires and 'quiz papers' sent us," Mr. Brown said, "I think it will strike you as astounding when I say that over a period of twelve months we received 24,000 such papers to fill out and return. Roughly, that means about 96 a day. The cost of answering them was about $192,500 in 1942, equivalent to 22½ cents a share of common stock."

With that introduction I am going to ask Mr. Cairnes to speak to you.

JOSEPH F. CAIRNES.* Before I say anything about post-war planning, I want to express for Mr. McConnell† his regret at being unable to be here. He is on a joint inspection that is being made in Portland by the Canadian and the Naval Affairs Committee. I am glad to be here for Mr. McConnell because I feel that post-war planning is an essential part of the war effort, it is second only to the winning of the war itself. The winning of the peace after the war necessitates post-war planning if we are to win it and requires the efforts of just such groups as the New England Water Works Association. There are those who say that private enterprise will absorb all of the employables that are released after the war. They feel that there will be a stored-up demand for consumer goods, and that we shall have an unparalleled period of prosperity. That may be the case, but I am inclined to feel that it can't be so. We do not have the exact figures, but we do know that millions are employed in the war industries and millions are in the military forces. When these men are released from war work and from the armed forces they can't be absorbed on the following day by private peace industries and private enterprise. Private enterprise will at some time, we hope, absorb all of the employables in the country and permit us to maintain our standard of living. However, it can't be done overnight. A relatively simple change would be from the manufacture of bombing planes to flying box cars which we expect to have after the war, but that also cannot be done overnight. It took Henry Ford a matter of eighteen months to change over from the manufacture of the Model T Ford to the Model A Ford. Great progress has been made by American industry since that time, but the days of miracles have passed, and when industry tries to go from manufacturing for the war to manufacturing for civilian uses it is going to take time.

I have read this report of the committee on post-war planning and think they have done a remarkable job. I was glad to note that emphasis has been placed on necessary work and that careful planning of the work after the war should be limited to necessary work. How-

*Assistant Regional Engineer, Region No. 1, Federal Works Agency.
†Assistant Regional Director, Region No. 1, Federal Works Agency.

ever, if we are unprepared for it we probably shall go through the same old cycle of FERA and WPA, and such things as that, which may be termed made work or work relief. The necessity for those jobs was due to a lack of careful planning; but with proper planning there is no need to go back through the old cycle. However, planning should not be merely speculative planning but should require the preparation of the plans, the acquisition of sites, the authorization for bond issues, and such things as that, so that jobs can be started immediately after the war is over.

At the termination of the war it is probable that there will be some sort of a cushion prepared based on experience after the last war; but a great many war contracts will be immediately cancelled throwing millions out of employment, to say nothing of the millions in the armed forces who will be released. We can't expect that the retooling job can be accomplished in the few weeks which are available so as to prevent a depression. None of us expects that when the last tank rumbles off the assembly line, streamlined automobiles will be taking shape at the other end of the line. It is going to require some time. If we were constructing a dam to impound water which would inundate a main highway necessary for our existence, we certainly would not wait until the water was licking at the shoulders of the dam before we started to acquire the sites and drew the plans for the relocated road. All of us have a duty to perform in planning for the future, and the time to do it is not next month or next fall, but now.

THE CHAIRMAN. Some criticism of the federal agencies has been due to our own fault in failing to be ready with specific, concrete plans, and that is one thing members of the Association must bear in mind.

SAMUEL M. ELLSWORTH.* My only reaction to this matter of post-war planning is this: It is a very desirable thing to do, and water works superintendents and engineers, and all others concerned, have got to begin thinking about it. At the same time it should not be allowed in any way to interfere with the war effort. In other words, what talking we do about it should be in a way under cover. It

*Consulting Engineer, Boston, Mass.

should not be publicized very much, because there is a decided danger at the present time in giving too much thought and too much time to what is going to happen after the war, when there is still a possibility that we may lose the war. My own state of mind is that every member here who has an opportunity to work twelve hours a day in the war effort should do so. Then if he wants to put in another three or four hours on post-war planning, that would be a very proper thing to do.

I will agree that there are probably a great many who are busy taking care of their own water works, and that must be so, it is an obligation they have. However, such people should devote all the spare time they have to preparing for the future, because we certainly are going to have a difficult time when this war is over in seeing that everyone is employed.

THE CHAIRMAN. I must disagree quite strongly with Mr. Ellsworth on this question of postponing thinking about the future. Failure to think ahead resulted in unpreparedness in the last war and the unpreparedness for the peace following. Unless we older fellows who can't work twenty-four hours a day or be accepted by the armed forces, and who have done the things that we were called upon to do, do not put our minds to work thinking for the future we shall be caught just as bad as we were after the last war. I do not say that everybody should be thinking about the future, but there are a few of us, who have no direct obligation towards the prosecution of the war, who should be thinking about the future.

MR. ELLSWORTH. I agree with what the chairman says; that is, that we should be thinking of post-war problems. My only point is that there are some who are not doing enough for the war, even those who are over sixty years of age. I certainly do not think that I am doing all I should. I do feel that I should exert myself in every way in trying to take more of a part in the winning of the war. That was my only thought in making that point.

ROGER W. ESTY.* I surely believe that we should all be thinking of the future. Of course we in the small towns do not compare with the large cities where they have big works which they can plan on

*Superintendent of Water Works, Danvers, Mass.

for the future, but every one of us has something that we can plan on. At Danvers the water and sewer departments have been consolidated and we now have something additional on which to plan for the future. Although we have not much of a sewer system to start with, as our entire town is not provided with sewers at the present time, we have an engineer working on our field plans. We also have a filtration project in mind and a storage reservoir. There is another lake that we can pull into our main supply by lowering the present line. We also have a lot of service renewal work to do, and have planned a new shop building. Between the sewer and water works we have figured that we have lined up about a million and a quarter dollars worth of work. We are quite well off in our water department financially, and we have sufficient income to take care of all of our obligations up to the present moment and somewhat into the future. Furthermore, we have considerable money laid aside at the present moment which we perhaps can apply to post-war work.

I think it would be folly for us not to consider some real projects. We should not get caught napping this time like most of us did after the last war and at the time of the depression. I know that in our town we were not prepared. Most of us are never prepared for such things. I think we should lay a lot of emphasis on that point. Let us for once be prepared. Let us this time have some projects, and let us have our plans all ready. We have one set of plans of a filtration plant which has already been approved by the State Department of Public Health, and we have plans on this water line that can be lowered between the two lakes. Those are all ready. We are working on the sewer setup, and we are in hopes to have that complete, every lateral line in town, and every house connection. Whether there is going to be some government aid, or whether we have to carry it through ourselves, we are all prepared and set to go.

CHARLES H. BECKER.* The Manufacturers Association has been working on post-war planning the same as you have, but we are not ready to announce any conclusions as yet. We have all studied this report of yours, and personally I think it is a splendid report; it is a step in the right direction. I have no doubt that there is a great

*Manager, Hydrant and Valve Department, R. D. Wood Co., Philadelphia, Pa.

deal of dammed up work due to the fact that we have not been able to get materials. The thing for all of us to do is to try to cushion as much as we can that material slack that is sure to come. Mr. Esty has the right idea; I am one hundred per cent in favor of what he has just said. Get your plans on paper now and be ready to go ahead with your contracts the minute the war is over. Someone mentioned that there may be a scarcity of materials and that the transition period may be quite extended. That may be in the automobile field, but I can assure you that so far as the water works manufacturers are concerned that will not be the case. The manufacturers of water works material, by and large, have been able to continue with their regular line of manufacture, because the armed forces have taken so much. Plants have not been disrupted, and unless the war lasts two or three years the water works manufacturers will be able to give you all the material that you need. When our men come back, we all hope to be able to put them back to work and give them the materials to work with. If you have your plans ready so that you can take the men in as fast as they come out of the armed services and keep them busy in installing these materials, then at least we will have some place for them to work.

SIDNEY S. ANTHONY.* I have had a thought in mind lately that it might not be so smart to jump immediately into construction as soon as the war is over, for the reason that there will be a period of time when wages and prices will be at peak levels, as they are now. If you start immediately construction on water works projects at that time, you will be wasting your assets on projects that can be carried out for less money at a little later date. If everybody waits until prices are down, of course, there will be a depression, but some way may be found to spread out post-war work. Our district plans not to start construction immediately. In the last year or so we have been so restricted in the making of additions through the activities of P-46 and U-1, and a few other things, that we have accumulated sufficient work. We have also accumulated some funds, which we have put into war bonds. I know a great many others have been doing the same thing. That will be a backlog of money to spend wisely and not in too great haste.

*Superintendent and Engineer, Augusta Water District, Augusta, Me.

THE CHAIRMAN. I do not believe that there is too great danger in everything starting off immediately. There is going to be inevitably more or less of a lag in getting things under way, so that I do not believe that there is going to be any danger of getting things started too soon.

MR. CAIRNES. If we do delay the start of construction after the war, it will result in a lowering of wages and we will be back to leaf-raking projects, or some such things as that, at subsistence wages. There is no reason to believe that the present high standard of wages can't be maintained after the war. I think for my own part, anyway, that we should try to inaugurate the construction program as soon as possible after the war and try to maintain the present standards of living, except of course that we shall have a little more sugar and a little more meat.

MR. ANTHONY. I am not a believer in low wages by any means, but I certainly can't see why we should be called upon to carry on long hours at time and a half or double time after 40 hours. Perhaps the hourly rate may continue the same, but I don't believe that there will be a continuance of weekly wages of $90 or $100, which I understand are being paid in certain defense industries at the present time. We have plenty of projects on our books now that we can start immediately or practically immediately when the men are available requiring no materials whatever in connection with construction; the only materials that will be needed being gasoline and motor vehicles. But we feel that we are not going to start in and build everything we can think of right off.

WILLIAM B. DUFFY.* Perhaps due to our lack of thorough investigation of our water system, we have recommended year after year certain improvements we thought desirable and helpful; but we neglected for a number of years to have the New England Insurance Rating Bureau make a thorough test of our system. We finally did that last year. Their recommendations were so much more than ours that we now have a completely new plan that will greatly enlarge

*Superintendent of Public Works, North Andover, Mass.

and increase the capacity of our mains. There are undoubtedly many of the small communities in which fire flow tests have not been made for a number of years. We were in that fix. When we got the Bureau's report we were certainly astounded, because although we had been recommending some major improvements the Bureau enlarged on them to such a degree that we have possibly $200,000 worth of work that may be done in our small department. Of course financing is a big consideration.

MR. ESTY. I would like to ask one question on a point of information. As I understood some time ago from the Department of Public Health, there was a bill before Congress which called for the appropriating of money to help the cities and towns on engineering in order to have plans prepared and ready for post-war construction. Do you know the status of that bill?

MR. CAIRNES. I am not speaking with any degree of assurance, but I think it has not been thrown out. There has been some money, I understand, appropriated for the Public Works Administration for post-war planning. It includes the construction of flight strips along main highways, and such items as that. But I think the bill making appropriations for over-all public works planning has not been passed.

WILLIAM W. BRUSH.† On this last question which Mr. Esty raised, I will say that in New York State, as I understand the situation, a bill was passed and approved by the Governor setting aside a substantial amount of money for the purpose of aiding communities to proceed with planning, whereby the state would match the money put up by the local community, and I think it is on about a fifty-fifty basis for making the plans.

Listening to the discussion here this morning it impresses me that probably most of us have the same objective in mind and that the work that this Association can do will be perhaps largely in the way of implementing the thoughts, and changing thought into action. The ideal, I believe, that most of us have in connection with post-war

†Editor, Water Works Engineering, New York, N. Y.

THE CHAIRMAN. I do not believe that there is too great danger in everything starting off immediately. There is going to be inevitably more or less of a lag in getting things under way, so that I do not believe that there is going to be any danger of getting things started too soon.

MR. CAIRNES. If we do delay the start of construction after the war, it will result in a lowering of wages and we will be back to leaf-raking projects, or some such things as that, at subsistence wages. There is no reason to believe that the present high standard of wages can't be maintained after the war. I think for my own part, anyway, that we should try to inaugurate the construction program as soon as possible after the war and try to maintain the present standards of living, except of course that we shall have a little more sugar and a little more meat.

MR. ANTHONY. I am not a believer in low wages by any means, but I certainly can't see why we should be called upon to carry on long hours at time and a half or double time after 40 hours. Perhaps the hourly rate may continue the same, but I don't believe that there will be a continuance of weekly wages of $90 or $100, which I understand are being paid in certain defense industries at the present time. We have plenty of projects on our books now that we can start immediately or practically immediately when the men are available requiring no materials whatever in connection with construction; the only materials that will be needed being gasoline and motor vehicles. But we feel that we are not going to start in and build everything we can think of right off.

WILLIAM B. DUFFY.* Perhaps due to our lack of thorough investigation of our water system, we have recommended year after year certain improvements we thought desirable and helpful; but we neglected for a number of years to have the New England Insurance Rating Bureau make a thorough test of our system. We finally did that last year. Their recommendations were so much more than ours that we now have a completely new plan that will greatly enlarge

*Superintendent of Public Works, North Andover, Mass.

and increase the capacity of our mains. There are undoubtedly many of the small communities in which fire flow tests have not been made for a number of years. We were in that fix. When we got the Bureau's report we were certainly astounded, because although we had been recommending some major improvements the Bureau enlarged on them to such a degree that we have possibly $200,000 worth of work that may be done in our small department. Of course financing is a big consideration.

MR. ESTY. I would like to ask one question on a point of information. As I understood some time ago from the Department of Public Health, there was a bill before Congress which called for the appropriating of money to help the cities and towns on engineering in order to have plans prepared and ready for post-war construction. Do you know the status of that bill?

MR. CAIRNES. I am not speaking with any degree of assurance, but I think it has not been thrown out. There has been some money, I understand, appropriated for the Public Works Administration for post-war planning. It includes the construction of flight strips along main highways, and such items as that. But I think the bill making appropriations for over-all public works planning has not been passed.

WILLIAM W. BRUSH.† On this last question which Mr. Esty raised, I will say that in New York State, as I understand the situation, a bill was passed and approved by the Governor setting aside a substantial amount of money for the purpose of aiding communities to proceed with planning, whereby the state would match the money put up by the local community, and I think it is on about a fifty-fifty basis for making the plans.

Listening to the discussion here this morning it impresses me that probably most of us have the same objective in mind and that the work that this Association can do will be perhaps largely in the way of implementing the thoughts, and changing thought into action. The ideal, I believe, that most of us have in connection with post-war

†Editor, Water Works Engineering, New York, N. Y.

planning would be, for instance, in the New England area, to have each and every community have an examination made as to needed improvements, betterments, and extensions of the water works system, and then have the work that should be done brought to the finished plan and specification stage. That would involve, or it would be desirable to have, action by the state health department approving the local plan. As I see it, the water department would require the backing of some outside agency, as a rule, in order to get the financial authorities to aid or to be favorable to the plan. That would result in the expenditure of local moneys as well as securing federal aid if and when federal aid is available for public work as a means of continuing the employment of employables who otherwise would become the care of the community as a whole—that is, the nation as a whole.

If this Association had a committee that would stimulate or guide the planning in all the water works systems in the New England area, that committee would receive, I know, the hearty support of the industry. In the industry there are many men you know who are employed by the companies that are interested in the water works business, and these men know the superintendents and the men in charge of the water works throughout the area. These men, I am sure, will be very glad to state, in discussion with those superintendents, what would represent the desirable improvements to be made in the systems. There are members of this Association who are scattered throughout New England who very possibly would be willing to help in checking over, with other water works men who would be members, what improvements would be desirable. Then would come the question of plans, estimates, and specifications. It seems to me that it is in that direction that this Association can do its most constructive work.

This committee report is excellent, and I wish to compliment the chairman and the members of the committee on it. I think now we have come to the time when there should be a further step taken in actually developing an organization in each and every community to plan the improvements to be undertaken by the water works. That does not mean improvements in the way of construction only, but also improvements in maintenance methods. There is a great deal of maintenance work that is not done which should be done, as well as improvements to the plant itself.

While I sympathize with Mr. Anthony in the idea that he would like to have the work done at lower prices, nevertheless, as Mr. Cairnes stated, you cannot wait until the lack of work and the lowering of the standard of living of the individuals has brought down wages before you start carrying on a scheme or a plan that will result in keeping our employables employed. In the old days, we went on the basis of each man for himself and devil get the hindermost. The result was that we had these very severe depressions. If we do not plan for the future, we are going to have depressions and we can't help it. We can't individually control these economic changes, the business changes, or industrial changes that take place, but I think that we, acting as larger units than the individual, can help a lot in that direction. That does not mean that individual initiative should be in any way reduced. We ought to stimulate it as much as we can. We should try to avoid after this war the leaf raking method of employing men. It is a mistake to reduce the output of a man by failing to use such mechanical aids as might be available and could be used to increase his output. I come from an ancestry of farmers, and all that we had to live on was what we produced in the early days. If you did not produce, you starved. Today the same thing is true. Cut down your production and your standard of living goes down. Wait until the force of unemployment reduces wages and again your standard of living goes down.

I think that the Association is starting in the right direction, and I hope that you will stimulate the work by aiding the manufacturers, the jobbers, to secure in the individual communities as much coöperation as possible. Furthermore, I think the Association and also the state health departments can do a substantial service by backing up the local men. It means a good deal to the local financial men if there is a definite backing to the plan of the superintendent.

LINN H. ENSLOW.* Warren Scott hit the nail on the head first when he suggested that making of surveys and investigations to get on the shelf a list of everything that should be done. When you are making that list naturally you have an A and a B list, one being more important than the other.

*Editor, Water Works & Sewerage, New York, N. Y.

Mr. Duffy came along with a capital suggestion of getting the fire underwriter to tell how deficient the system may be. They have told you before, but you forgot it, and they are willing to tell you again.

Then Roger Esty tells us of the splendid program planned for Danvers.

I don't believe that Sid Anthony meant what he said. He is just a little mite Scotch, but he is not going to be too Scotch. For instance, he doesn't want to say what he is going to do on a certain day, because if he looks over the schedule he may decide that as a business man he doesn't want to do it that day, he would rather wait another month or so, until the costs come down a little bit so that he can be sure where he stands. He is a little conservative but he has the right idea too.

Mr. Brush's suggestion was a good one. Naturally you fellows don't have to do everything the equipment men want you to do, but it is their business to know what is worth while in the way of equipment; otherwise they would not be able to sell you the idea of buying it. I do believe that their recommendations, plus the recommendations of the state board of health, will give you a line on what you should do at the first opportunity.

Mr. Cook offers a very fine suggestion. Get your list of needed materials and equipment all ready and keep it in the safe, but have it ready so that you can really buy your equipment and materials just as soon as the opportunity is open.

THE CHAIRMAN. Before we close, I would like to call your attention to two recent articles in the *Reader's Digest*. One of those articles is in the April issue, entitled "Triangle of Plenty," and it bears out the thought that Mr. Brush gave us, that increased production creates increased purchasing power. The other article, in the March issue, is well worth reading in its entirety, particularly as it uses the water works system as a lesson in economics. In answering the question, What is profit? it say this:

"Let us consider the operation of this fact in a primitive community, say of 100 persons who are nonintelligent beyond the point of obtaining the mere necessities of living by working hard all day long.

"Our primitive community, dwelling at the foot of a mountain, must have water. There is no water except at a spring near the top of the mountain; therefore, every day all the 100 persons climb to the top of the mountain. It takes them one hour to go up and back. They do this day in and day out, until at last one of them notices that the water from the spring runs down inside the mountain in the same direction that he goes when he comes down. He conceives the idea of digging a trough in the mountainside all the way down to the place where he has his habitation. He goes to work to build a trough. The other 99 people are not even curious as to what he is doing.

"Then one day this 100th man turns a small part of the water from the spring into his trough and it runs down the mountain into a basin he has fashioned at the bottom. Whereupon he says to the 99 others, who each spend an hour a day fetching their water, that if they will each give him the daily production of 10 minutes of their time, he will give them water from his basin. He will then receive 990 minutes of the time of the other men each day, which will make it unnecessary for him to work 16 hours a day in order to provide for his necessities. He is making a tremendous profit—but his enterprise has given each of the 99 other people 50 additional minutes each day for himself."

Now, that is what the water works man is doing, and that is the publicity which you ought to give in your own neighborhood to show why you should have adequate funds to enlarge and operate your plant, and, incidentally, to take care of any increase in salaries.

INDEX OF ADVERTISERS

	Page
Atlas Mineral Products Co.	xv
Bailey, Howard E.	ii
Barbour, Frank A.	ii
Barrows, H. K.	ii
Builders-Providence, Inc. Division of Builders Iron Foundry	xii
Cast Iron Pipe Research Assn.	xxxi
Cement Lined Pipe Co.	viii
Crosby, Irving B.	ii
Donaldson Iron Co.	xvi
Dresser Mfg. Co.	Following front cover
Eddy Valve Co.	xiv
Edson Corp., The	xxi
Ellsworth, Samuel M.	ii
Eureka Pipe Co., Inc.	viii
Fairbanks-Morse Co.	xi
Fay, Spofford & Thorndike	ii
Flexible Sewer Rod Equipment Co.	xxi
Ford Meter Box Co.	xvi
Hays Mfg. Co.	xvii
Hersey Mfg. Co.	iv
Hughes, Edward F.	iii
Hydraulic Development Corp.	x
Jackson, Henry D.	iii
Johns-Manville	v
Kennedy Valve Mfg. Co.	xiii
Knowles, Morris, Inc.	ii
Leadite Co.	Back cover
Lock Joint Pipe Co.	Facing front cover
Ludlow Valve Mfg. Co. Inc., The	ix
Metcalf & Eddy	ii
Morris Machine Works	xviii
National-Boston Lead Co.	xv
National Water Main Cleaning Co.	viii
Neptune Meter Co.	vii
Newsom & Aldrich	ii
Pierce-Perry Co.	viii
Pirnie, Malcolm	iii
Pitometer Co.	iii
Pittsburgh Equitable Meter Co.	Following front cover
Potts, Clyde	ii
% Proportioneers, Inc. %	xxv
Red Hed Mfg. Co.	xxiv
Rensselaer Valve Co.	xxvi
Reppucci, C. & Sons, Inc.	iii
Ross Valve Mfg. Co.	xxiii
Smith, The A. P., Mfg. Co.	xvi
Turbine Equipment Co.	xix
U. S. Pipe and Foundry Co.	Facing back cover
Wailes Dove-Hermiston Corp.	xxii
Wallace & Tiernan	xx
Warren Foundry and Pipe Corp.	xxi
Weston & Sampson	iii
Whitman & Howard	iii
Wood, R. D., Co.	xxvi
Worthington Pump and Machinery Corp.	vi

(Classified index on page xxvii)

ENGINEERS

HOWARD E. BAILEY

Consulting Sanitary Engineer

Water Works — Water Purification
Sewerage — Sewage Treatment
Industrial Wastes Disposal

177 State St., Boston, Mass.

FRANK A. BARBOUR

Consulting Engineer

Water Supply, Water Purification, Sewer and Sewage Disposal, Valuations

Tremont Building, Boston, Mass.

H. K. BARROWS

M. Am. Soc. C. E.

Consulting Hydraulic Engineer

Water Power, Water Supply, Sewerage, Drainage, Investigations, Reports, Valuations, Designs, Supervision of Construction

BOSTON, MASS. — 6 BEACON ST.

IRVING B. CROSBY

Consulting Engineering Geologist

Investigations of Dam and Reservoir Sites and Groundwater Supplies

6 BEACON ST. — BOSTON, MASS.

Reeves Newsom — E. H. Aldrich

NEWSOM & ALDRICH

Engineer-Consultants

Water Supply, Purification and Distribution
Sewerage and Sewage Disposal
Valuations and Reports

500 Fifth Ave., New York — Williamsburg, Va. Harrisburg, Pa.

Samuel M. Ellsworth

M. Am. Soc. C. E.

Consulting Engineer

Water Supply and Sewerage

Investigations, Reports and Designs
Supervision of Construction and Operation

6 Beacon Street, Boston

FAY, SPOFFORD & THORNDIKE

ENGINEERS

Frederic H. Fay — Charles M. Spofford
John Ayer — Bion A. Bowman
Carroll A. Farwell — Ralph W. Horne

Water Supply—Sewerage—Drainage
Structural and Foundation Problems
Investigations Reports Designs Valuations
Engineering Supervision

11 BEACON STREET — BOSTON

MORRIS KNOWLES, INC.

Engineers

Water Supply and Purification, Sewerage and Sewage Disposal, Industrial Wastes, Valuations, Laboratory, City Planning.

1312 PARK BUILDING
PITTSBURGH, PA.

METCALF & EDDY

ENGINEERS

Water, Sewage, Drainage, Refuse and Industrial Wastes Problems

Airfields — Valuations

Laboratory

Statler Building, BOSTON

CLYDE POTTS

M. Am. Soc. C. E.

Consulting Sanitary Engineer

30 Church Street - - New York

Sewerage and Sewage Disposal
Water Works and Water Supply
Reports, Plans and Estimates

ENGINEERS

MALCOLM PIRNIE
ENGINEER
Water Supply, Treatment, Sewerage
Reports, Plans, Estimates,
Supervision and Operation,
Valuation and Rates.
25 West 43rd Street, New York, N. Y.

WESTON & SAMPSON
Consulting Engineers
Robert Spurr Weston George A. Sampson
Water Supply and Sewerage
Chemical and Bacteriological
Laboratory
14 BEACON ST. BOSTON, MASS.

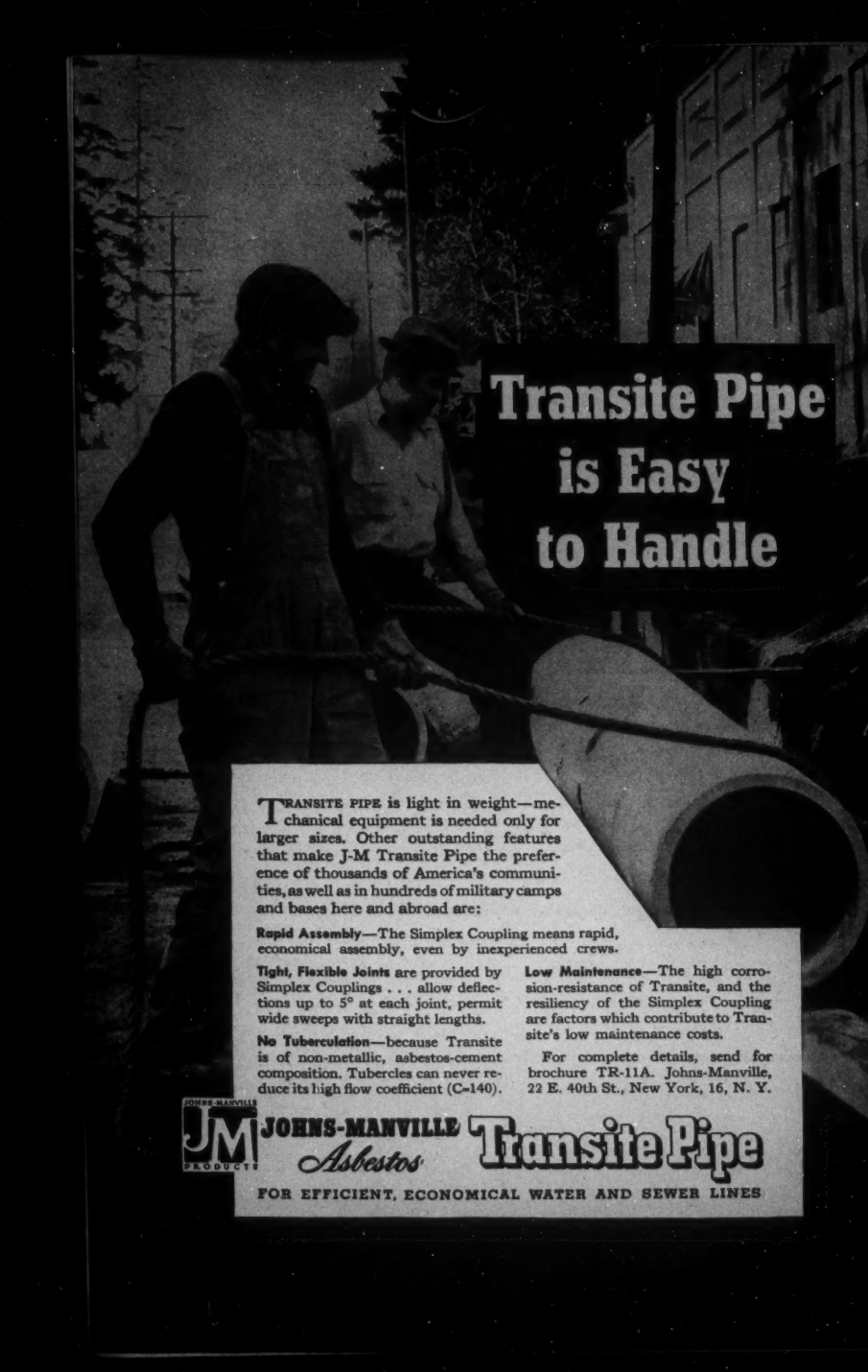
THE PITOMETER COMPANY
ENGINEERS
Water Waste Surveys
Trunk Main Surveys
Water Distribution Studies
Penstock Gaugings
50 Church Street New York City

WHITMAN & HOWARD
HARRY W. CLARK, Associate
Civil Engineers
(Est. 1869. Inc. 1924.)
Investigations, Designs, Estimates, Reports and Supervision, Valuations, etc., in all Water Works and Sewerage Problems
89 BROAD ST. BOSTON, MASS.

EDWARD F. HUGHES
Water Works Contractor
Gravel, Artesian and Driven Wells
Foundation Borings
53 State St., Boston

Results Count Today more than ever
Manchester, N. H. Water Works, moderate speed centrifugal pump, 5 years, same sleeve, same packing, perfect operation.
Andover, Mass. Water Works, high speed centrifugal pump, 5 years, same sleeve, same packing. Sleeves and Packing Cost Money!
Cut the Cost As They Did! ACE #4 and #90 Did Their Work, It Will Yours!
Henry D. Jackson, *Agent*
29 NOYES STREET, CONCORD, N. H.

C. REPPUCCI & SONS, INC.
GENERAL CONTRACTORS
Ground Water Supply
Gravel Packed Wells Driven Wells
Water Works Reservoirs
Drainage and Sewerage Works
10 Garden Court Street (Tel. Lafayette 7330) Boston, Mass.



Transite Pipe is Easy to Handle

TRANSITE PIPE is light in weight—mechanical equipment is needed only for larger sizes. Other outstanding features that make J-M Transite Pipe the preference of thousands of America's communities, as well as in hundreds of military camps and bases here and abroad are:

Rapid Assembly—The Simplex Coupling means rapid, economical assembly, even by inexperienced crews.

Tight, Flexible Joints are provided by Simplex Couplings . . . allow deflections up to 5° at each joint, permit wide sweeps with straight lengths.

No Tuberculation—because Transite is of non-metallic, asbestos-cement composition. Tubercles can never reduce its high flow coefficient (C=140).

Low Maintenance—The high corrosion-resistance of Transite, and the resiliency of the Simplex Coupling are factors which contribute to Transite's low maintenance costs.

For complete details, send for brochure TR-11A. Johns-Manville, 22 E. 40th St., New York, 16, N. Y.

JOHNS-MANVILLE JM PRODUCTS

JOHNS-MANVILLE *Asbestos* Transite Pipe

FOR EFFICIENT, ECONOMICAL WATER AND SEWER LINES

The name HERSEY
has been predominant for
more than half a century in
the water works field.

Vol. 57
1943

HERSEY

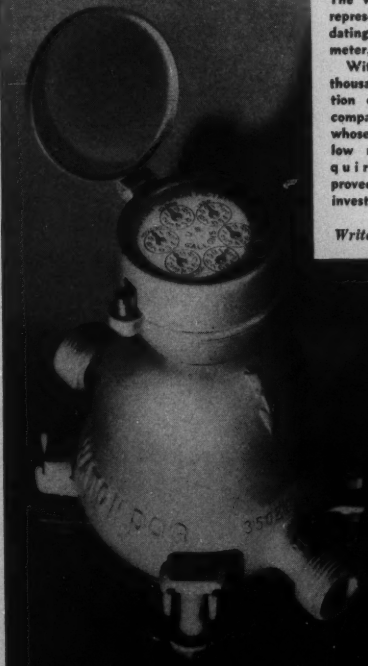
WATCH DOG WATER METERS

. . . built to give LASTING SATISFACTION

The Worthington-Gamon Meters of today represent an experience of 85 years . . . dating back to the invention of the piston meter, in 1855, by Henry R. Worthington.

With 3,650,000 meters now serving thousands of communities, this organization offers to municipalities and water companies a product whose accuracy and low maintenance requirements have proved it to be a sound investment.

Write for literature.



WORTHINGTON-GAMON METER COMPANY
General Offices: HARRISON, NEW JERSEY

WORTHINGTON-GAMON

WG1-2A

WHEN YOU REPAIR YOUR WATER METERS

Do a good job!

COST
OF REPAIRING METERS
IN A TYPICAL CITY

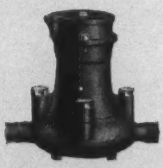
30% FOR REMOVING AND REINSTALLING

16% FOR TESTING

12% FOR OVERHEAD

42% FOR DISASSEMBLING, CLEANING, REPAIRING, REASSEMBLING

WHEN A METER is removed only once every five or ten years FOR REPAIRS, and it is seen that so small a percentage of the actual cost is spent on actual repairing, isn't it logical that every care should be taken to be sure that the meter, when returned to service, has been repaired properly and will test well at low rates of flow?



● A domestic meter should register at least 90% at ¼ g.p.m., because at least 13% of all water is used at this rate of flow, or less. For the care you take in repairing meters you will be well repaid by added revenue. Your Trident representative will be glad to help you.

60

NEPTUNE METER COMPANY • 50 West 50th Street • New York 20, N. Y.

Branch Offices in CHICAGO, SAN FRANCISCO, LOS ANGELES, PORTLAND, ORE., DENVER, DALLAS, KANSAS CITY, LOUISVILLE, ATLANTA, BOSTON.
Neptune Meters, Ltd., Long Branch, Ont., Canada

Attention Mr. Water Works Superintendent ! !

CEMENT LINED SERVICE PIPE:—

Resists Corrosion

Has proven practical for nearly three-quarters of a century

Immediate delivery can be made to waterworks on both wrought iron and steel, black or galvanized.

"SPECIFY EUREKA PIPE"

EUREKA PIPE COMPANY, Inc.

Manufacturers of CENTRIFUGAL CEMENT LINED PIPE and LEAD AND TIN LINED FITTINGS

591-593 WASHINGTON ST. TEL. 3-9550 LYNN, MASS.

Health and Protection First

Water delivered through dirty pipes may be a MENACE.

Incrusted water pipes mean inefficiency and loss of Fire Protection.

We Guarantee the Results of Our Method of Cleaning.

WRITE US.

National Water Main Cleaning Co.

30 Church Street New York City

Cement Lined Service Pipe

Cement lined pipe has eliminated corrosion and metal contamination for 60 years

Write for Literature

Cement Lined Pipe Co.

Lynn, Mass.

PIERCE - PERRY CO.

Wholesalers of

Water Works Brass Goods.
Byers Wrought Iron Pipe.
Youngstown Steel Pipe.
Valve and Service Boxes.

236 Congress St., Boston, Mass.

Telephone, Hancock 7817-7818

No Gold Braid, *but*...

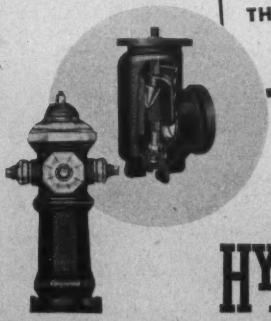
. . . the earnest men who direct and maintain vital municipal waterworks and sewerage systems have their strategical problems, too. They must conduct their campaigns against fire, flood and epidemics—all enemies of industry and public welfare which would interrupt or slow down manpower and production. They must marshal carefully such supplies as are available. They must shift equipment, make repairs and use to the utmost advantage whatever is obtainable under priority restrictions.

Ludlow, regardless of a sincere wish to be co-operative, is limited by rulings of the War Production Board. We will gladly send you such information as we have on WPB priorities and, when you have obtained a rating, we will make shipment with all possible promptness.

V-6

THE LUDLOW VALVE MFG. CO., INC.
TROY, N. Y.

LUDLOW HYDRANT CONSTRUCTION: Self-releasing 30° angle wedges and free-floating gates, self-adjusting to seats, afford smooth, trouble-free performance, long service. Opening and closing of hydrant automatically opens and closes drain, located at lowest point. Clogging is prevented. Gate is wedge-locked when closed, to prevent flooding. All working parts may be lifted through top of hydrant for easy inspection. Top and bottom bodies bolted together at ground line.



LUDLOW
HYDRANTS AND VALVES
SINCE 1866

HYDRO-TITE

AND DRY BRAIDED FIBREX

A DEPENDABLE SELF-CAULKING JOINT COMPOUND FOR CAST IRON BELL AND SPIGOT WATER MAINS

HYDRO-TITE is a self-caulking sulphur base jointing compound used to joint bell and spigot cast iron water mains and soil pipe. It comes in powder form which insures uniformity and quick melting.

When poured into a joint, HYDRO-TITE immediately solidifies upon contact with the metal and bonds to both the surfaces of the bell and the spigot for the entire depth of the joint. It requires no caulking and after pouring a joint, water pressure may be immediately applied.

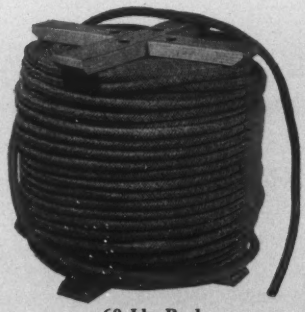
HYDRO-TITE is easy to use, no skill being required to make joints that are tight from the start. Joints made with HYDRO-TITE will stand any pressure the pipe will stand.

DRY BRAIDED FIBREX

USED LIKE BRAIDED JUTE
WILL NOT BREED BACTERIA

A SANITARY Packing used in jointing bell and spigot pipe for water, sewer mains and soil pipe.

FIBREX was designed for use with Hydro-Tite and other self-caulking compounds, but is entirely suitable also for joints made with lead, and for Sani-Tite and other asphalt sewer joint compounds. Thousands of pounds of Fibrex are already in service on water lines throughout the country.

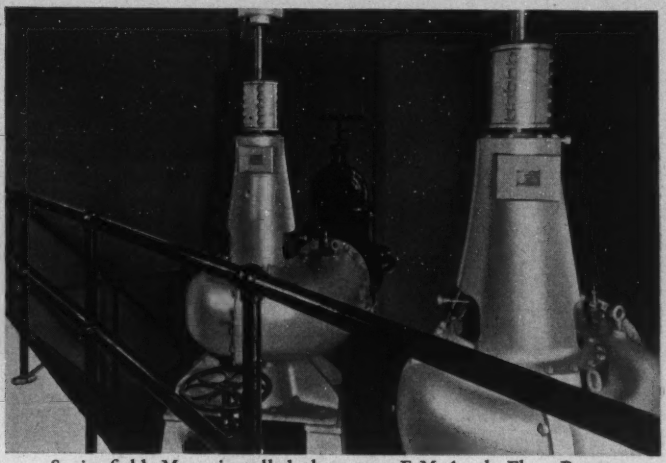


60 Lb. Reels

HYDRAULIC DEVELOPMENT CORPORATION

Main Sales Office: 50 CHURCH STREET, NEW YORK, N. Y.

Works: WEST MEDFORD STATION, BOSTON, MASS.



Springfield, Mass. installed these two F-M Angle-Flow Pumps for flood control in the new Circuit Ave. Pumping Station.

F-M PUMPS FOR MODERN WATERWORKS

FAIRBANKS, MORSE & CO. manufacture a complete line of pumping equipment for pumping stations of all sizes . . . from small units up to huge plants which pump millions of gallons per day.

If your equipment is more than 10 years old you are paying at least 10% more than you ought to pay for pumping. Improvements in design and performance efficiency of Fairbanks-Morse pumps will reduce your present operation expenses right from the start.

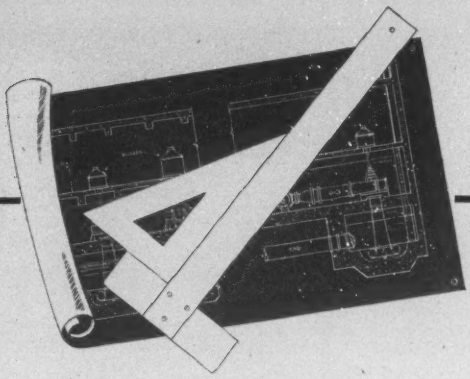
Why not let a Fairbanks-Morse engineer help you solve your pumping problems? He is at your call, without cost or obligation. Write Fairbanks, Morse & Co., 178 Atlantic Ave., Boston, Mass.

FAIRBANKS MORSE

DIESEL ENGINES · WATER SYSTEMS
PUMPS · WASHERS-IRONERS
ELECTRICAL MACHINERY · FARM EQUIPMENT
FAIRBANKS SCALES · STOKERS
RAILROAD EQUIPMENT · AIR CONDITIONERS

F M

Pumps



LET US HELP YOU WITH YOUR POST WAR PLANNING

BUILDERS WATER AND SEWAGE WORKS Equipment

Victory will bring unusual opportunities for water works and sewage treatment plants if plans are complete and ready. We shall be pleased to recommend adaptations of standard metering and controlling devices to meet your special needs.

Venturi Meters

Type M, Flo-Watch and Chronoflo Meters

Venturi Controllers . Filter Gauges

Liquid Level Gauges . Ratio Gauges . Kennison Nozzles

Chronoflo Long Distance Telemeters

Toledo Chronoflo Conveyor Weigh Meters

ARMY (E) NAVY AWARDED AUG. 1st 1942

BUILDERS-PROVIDENCE, INC.

Est. 1830 • DIVISION OF BUILDERS IRON FOUNDRY • Est. 1857

9 CODDING STREET • PROVIDENCE, R. I.

BUILDERS WATER AND SEWAGE WORKS Equipment

..... How much do YOU pay for repairs to broken hydrants?

$50

$10

When ordinary designs of fire hydrants are broken by an automobile out of control or a heavy truck, the entire standpipe must be replaced, requiring a lengthy and costly repair job.

On the other hand, the Kennedy SAFETOP, while fully as strong and as resistant to ordinary impacts as a one-piece hydrant, limits breakage from smashing impacts to inexpensive, easily replaceable parts.

No water is lost; and the entire repair job can be done by one man, within half an hour, without excavating, and at a total cost of less than $10.00 for repair parts and labor.

Many thousands of Kennedy SAFETOPS are in service; and the water department superintendents responsible for them are enthusiastic about their dependability, easy operation, and low maintenance cost.

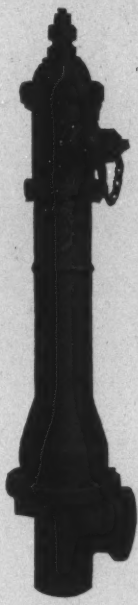
The Kennedy Valve Mfg. Co., Elmira, N. Y.

KENNEDY SAFETOP FIRE HYDRANT

REG. U.S. PAT. OFF.

EDDY

Valves and Hydrants



Distinctive Features of the EDDY Valves

ONLY three parts are moved by the Stem—the ball and the two gates. Each gate is hung from one of the trunnions on the ball. A convex surface at the base of each trunnion fits a concave surface on the back of the gate. This allows the gates to adjust themselves properly to their seats. . . . The gates, being free to revolve on the trunnions, do not always seat in the same position. Gates are center bearing and adjustable. They are forced to their seats with equal pressure at all points. There are two hooks on the ball on sizes 4-inch and larger, which loosely engage with the gates.

Distinctive Features of Our New Swivel Top Hydrants

THIS new hydrant has all the advantages of the popular EDDY fire hydrant, plus several additional features. . . . Nozzles are in a short flanged section of the standpipe, which may be unbolted and turned to different positions. . . . Should the standpipe be broken, only the casting below the swivel head need be replaced. . . . To raise the hydrant to conform to a new grading, simply insert a flanged extension piece below the swivelhead. No digging. To add a steamer nozzle at any time, it is only necessary to replace the swivel head with one having a steamer nozzle.

Besides valves and hydrants to meet the most exacting demands of waterworks service, the complete EDDY Line includes: valves for sewage disposal works; valves for steam, gas and oil; check valves, foot valves, plug valves, shear gates, indicator posts, etc. EDDY valves are made in three classes: Iron Body Bronze Mounted, All Bronze, and All Iron Valves.

Eddy Valve Co.

WATERFORD NEW YORK

WHEN LAYING WATER MAINS TODAY . . .

Remember that joints caulked with lead are soft and flexible . . . take up normal pipe movement without leakage . . . stay tighter longer.

Remember, too, that there is no current shortage of lead . . . no ruling which prohibits the use of lead for caulking purposes.

We furnish lead either in ingot form for cast joints or as lead wool for cold caulking. Both carry the Lead Industries Association Seal of Approval—a guarantee of their purity.

National-Boston Lead Company

900 ALBANY STREET BOSTON, MASS.

INGOT LEAD — LEAD WOOL — LEAD PIPE
SOLDER — WHITE LEAD — RED LEAD

For
PERMANENTLY TIGHT, TROUBLE-FREE BELL & SPIGOT WATER MAIN JOINTING
plus Extra Economy and Convenience

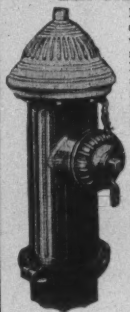
Tegul-MINERALEAD

10 LB. INGOTS—impervious to moisture, easy to store and handle.
CANNOT CHANGE its chemical composition.
WEIGHS ONLY 1/5th as much as lead; goes 3 times as far.
NEEDS NO SKILLED LABOR or deep bell holes.
GREATER BONDING STRENGTH to metallic and ceramic surfaces, and much higher resistance to mechanical and thermal shock, because it contains an olefine polysulphide.
LOWER INITIAL LEADAGE and faster tight sealing.

for more information, write

THE ATLAS MINERAL PRODUCTS COMPANY of PA.
Mertztown - Pennsylvania

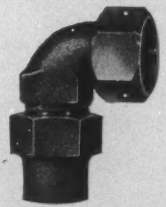
THE A. P. SMITH MFG. CO.,
East Orange, New Jersey



Manufacturers of high-grade specialties in connection with water and gas department work, consisting of—
Machines for inserting valves under pressure, and for making large right angle connections to mains under pressure, and for inserting house service connections under pressure.
Also makers of—
Pipe Cutting Machines, each size being adjustable for use on three different sizes of pipe.
High-grade water works supplies, such as Hydrants, Valves, Meters, Corporation Cocks, etc.
We also make a new type of hydrant which has a breakable joint at the ground line which when struck with an impediment will break at a specified point and only a coupling has to be used to repair the hydrant, which will be back in service in twenty (20) minutes.
"HYDRANT WITH BREAKABLE COUPLING"

SMITH
WATER WORKS SPECIALTIES & SUPPLIES
THE A.P.SMITH MFG. CO. *East Orange,N.J*

Ringstyle



Ford RINGSTYLE couplings are like ordinary straight and angle water meter couplings except that they are provided with inside threads for screwing direct onto iron pipe, or with compression joints for copper or lead tubing. Ask for catalog.

FORD METER BOX CO.,
WABASH, IND.

DONALDSON IRON CO.

MANUFACTURERS
. . . OF . . .

CAST IRON PIPE

. . . AND . . .

Special Castings for Water and Gas
Also Flange Pipe and Fittings

EMMAUS, LEHIGH COUNTY, PA.

FULL PRODUCTION for

WATER WORKS

● We have never relaxed our efforts to supply whatever is needed for your services

therefore,

We manufacture everything in our line that is authorized by WPB regulations

FULL PRODUCTION for

UNCLE SAM

● Our facilities are being used to produce specialized items for the Army, Navy and Air Corps

and,

This is in addition to our regular line that is urgently needed in the War Effort

We are proud of our achievement in doing both jobs

HAYS MANUFACTURING COMPANY, ERIE, PENNSYLVANIA

SINCE 1869

WATER WORKS PRODUCTS

HAYS

INVEST IN BONDS TODAY TO PROVIDE FOR EXTENSIONS TOMORROW

PUMPS BY MORRIS

. . . These three words explain the dependable service and low operating and maintenance costs in hundreds of municipal pumping stations all over the country . . . many in New England.

The reasons? . . . 70 years of experience in building centrifugal pumps . . . an engineering department which has always pioneered in centrifugal pump advances of design and efficiency . . . a plant manned by craftsmen to whom each unit is a "special order."

For maximum efficiency and lasting reliability, investigate Morris designs of centrifugal pumps for municipal water supply . . . sewerage systems . . . storm water drainage . . . and general services. Bulletins on request.

STARKWEATHER ENGINEERING CO.
NEWTON, MASS.

MORRIS MACHINE WORKS

MORRIS
ESTABLISHED 1864

BALDWINSVILLE NEW YORK

CENTRIFUGAL PUMPS

DE LAVAL

CENTRIFUGAL WATER WORKS PUMPS

Town of Hanover, Mass. — Pumping Station

When we have won the war, such equipment as shown above will again be available to New England Water Works.

As Engineers and Contractors we hope to have the pleasure of supplying your requirements, at that time, as we have been doing for the past thirty-seven years.

(This is the second of a series of typical installation advertisements.)

TURBINE EQUIPMENT COMPANY OF NEW ENGLAND

80 Federal Street **Phone LIBerty 5993-5994** **Boston, Mass.**

New England Representatives for

DE LAVAL STEAM TURBINE COMPANY

TRENTON, NEW JERSEY

CAN HE COUNT ON *Safe Water*

ON YOUR SIDE OF THE FENCE?

Both in camp and in the field, water supplies used by our troops are safeguarded by strict standards of *chlorination.* Standard and special types of W&T Chlorinators are serving widely for this important task, from the Arctic to the Tropics.

But what about the service man who comes to town on leave? What about "home front" protection from water-borne disease — not only for troops off duty, but for the whole civilian army engaged in production?

America's highly favorable public-health records tell the answer. In most cases, municipal water supply systems are meeting the exacting demands successfully — thanks again to the widespread use of W&T chlorinating equipment. With the help of W&T Engineers, ways are being found to maintain water purification standards in the face of increased demand, by more effective utilization of available equipment.

If you are facing difficult conditions due to greater demand, limited man power and the inability to increase treatment capacity, get in touch with W&T. Our experience in helping others assure safe water may be applicable to help you.

SA-151S

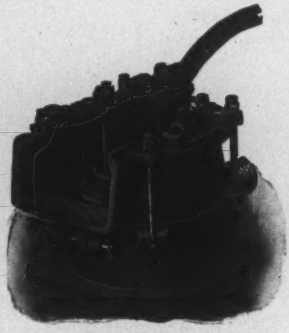
"The Only Safe Water is a Sterilized Water"

WALLACE & TIERNAN CO., INC.

Manufacturers of Chlorine and Ammonia Control Apparatus

Newark (1), N. J. • Represented in Principal Cities

EDSON
PUMPS and ACCESSORIES



Hand Pumps – Power Pumps
Truck or Trailer Mounted
Edson Special Suction Hose
Red Seal Diaphragms
Edson Bronze Hydrant Pump
Strainers, Adapters, etc.

Distributors for
Pollard Pipe Line Equipment
Electric Pipe Thawers

Universal Pipe Locator
Universal Water Leak Detector

THE EDSON CORPORATION
49 D Street, Tel. SOUth Boston 3041 South Boston
New York: 142 Ashland Place, Brooklyn

Warren Foundry & Pipe Corp.
ALSO
Warren Pipe Co. of Mass., Inc.

SALES OFFICES
11 BROADWAY, NEW YORK
75 FEDERAL STREET, BOSTON, MASS.

Manufacturers of

CAST IRON PIPE

Flanged Pipe *Flexible Joint Pipe*
Bell and Spigot Pipe
Special Castings *Short Body B. & S. Specials*
Warren (WF) Spun Centrifugally Cast Iron Pipe

WORKS: PHILLIPSBURG, N. J. and EVERETT, MASS.

Large Stock Enables Us to Make Prompt Shipments

For an Extremely Smooth Pipe Interior
SPECIFY

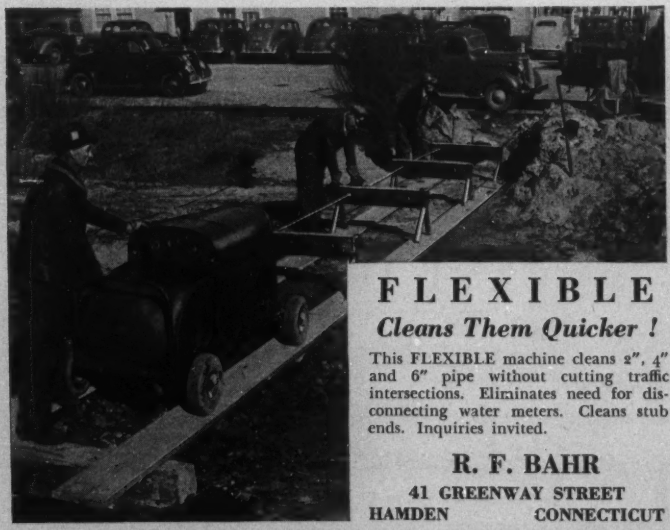
SPUN **BITUMASTIC** LINING

This Will Assure You of
NO LOSS IN CAPACITY
NO TUBERCULATION OR INCRUSTATION
NO EFFECT ON WATER QUALITY

Recent Repeat Flow Test Shows High Williams Hazen Coefficient Unchanged After EIGHT YEARS

Wailes Dove-Hermiston Corporation

General Offices: Westfield, N. J.
New York District Office: 17 Battery Place, N. Y. C.



FLEXIBLE

Cleans Them Quicker !

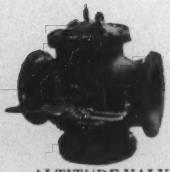
This FLEXIBLE machine cleans 2", 4" and 6" pipe without cutting traffic intersections. Eliminates need for disconnecting water meters. Cleans stub ends. Inquiries invited.

R. F. BAHR

41 GREENWAY STREET
HAMDEN CONNECTICUT

1879—ROSS— 1879

AUTOMATIC VALVES



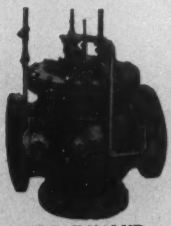
Controls elevation of water in tanks, basins and reservoirs

ALTITUDE VALVE
1. Single Acting
2. Double Acting

Maintains desired discharge pressure regardless of change in rate of flow

REDUCING VALVE

Regulates pressures in gravity and pump systems; between reservoirs and zones of different pressures, etc.



Maintains levels in tank, reservoir or basin

1. As direct acting

2. Pilot operated and with float traveling between two stops, for upper and lower limit of water elevation.

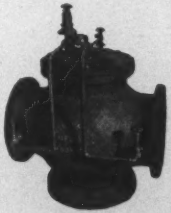
FLOAT VALVE

A self contained unit, with three or more automatic controls

COMBINATION VALVE

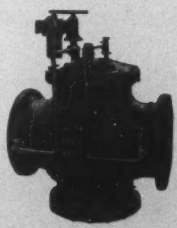
Combination automatic control both directions through the valve.

Maintains safe operating pressures for conduits, distribution and pump discharge



SURGE-RELIEF VALVE

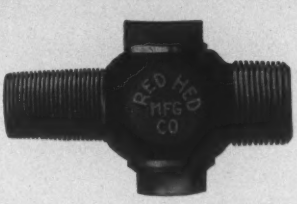
Electric remote control—solenoid or motor can be furnished



REMOTE CONTROL VALVE

Adapted for use as primary or secondary control on any of the hydraulically controlled or operated valves.

ROSS VALVE MFG. CO., INC. Box 592 TROY, N. Y.



THE PLUGS IN RED HED CORPORATIONS

AND

CURB STOPS

TURN EASILY

AVOID COSTLY REPLACEMENTS

BUY RED HED

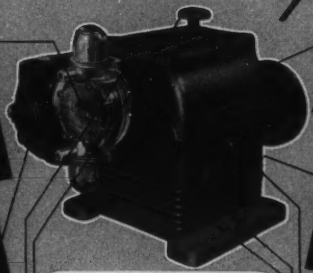
RED HED MFG. CO.

Manufacturers of

RED HED Brass Goods for Water Works

368 Congress Street Boston, Mass.

Announcing



"SEE-THRU" PUMP HEAD

3 STEP CONE PULLEY

ELECTRIC MOTOR

UNIT FRAME

DOSAGE CALCULATOR • (For Hypochlorinators)

OIL FILLER CAP

CHEMICAL FEED SELECTION KNOB and VISUAL STROKE LENGTH INDICATOR

BEARINGS

WEEP HOLE

HEAVY DUTY
Chem-O-Feeder

Designed by 1000 Waterworks men, backed by %Proportioneer's% experience in over 10,000 successful installations as well as our iron clad guarantee.

Continuous Feed
Adjustable While Operating
Designed for Long Life

%PROPORTIONEERS, INC.%

"Chemical Feeder Headquarters"

63 CODDING ST., PROVIDENCE, R. I.

This is a *GATE VALVE* which will be buried under a city street

Nothing unusual about that—large numbers of valves go under-ground every year. The noteworthy thing about *this* particular valve is the fact that thousands of its brothers are still giving excellent service after *over half-a-century* and probably will continue to do so for another 50 years.

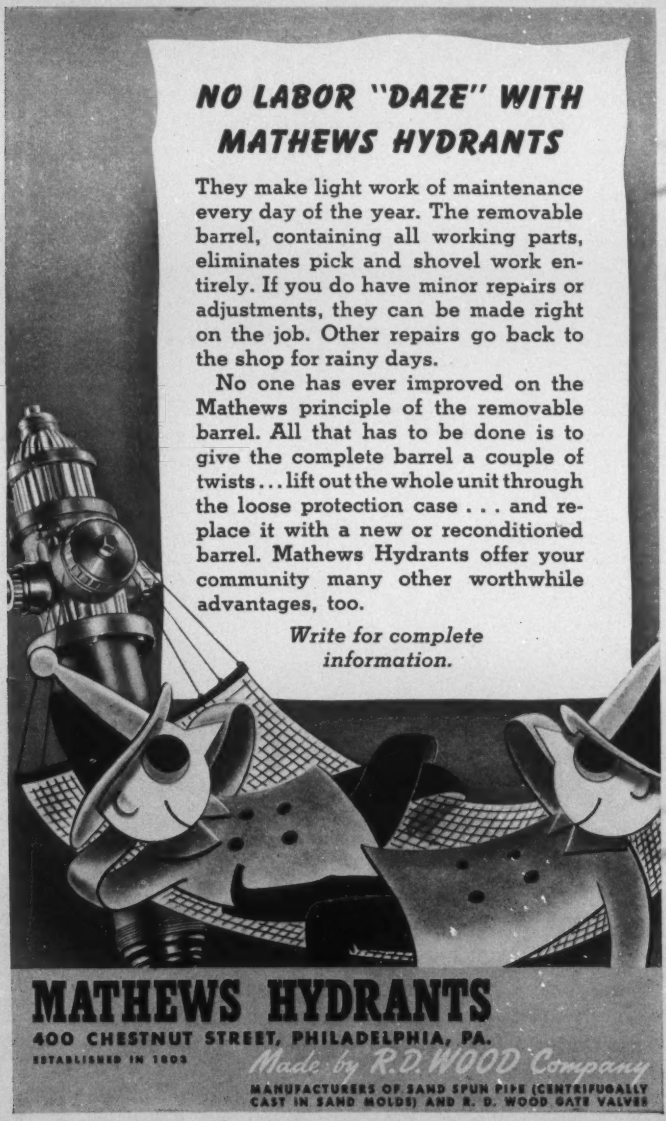
That is worth considering. What better *guarantee* would you require on the valves you buy *today?*

Rensselaer Valve Company

TROY, NEW YORK

NEW ENGLAND BRANCH **COOMBS BLDG., HAVERHILL, MASS.**

Mr. Herbert B. Crowell, Sales Manager


NO LABOR "DAZE" WITH MATHEWS HYDRANTS
They make light work of maintenance every day of the year. The removable barrel, containing all working parts, eliminates pick and shovel work entirely. If you do have minor repairs or adjustments, they can be made right on the job. Other repairs go back to the shop for rainy days.
No one has ever improved on the Mathews principle of the removable barrel. All that has to be done is to give the complete barrel a couple of twists... lift out the whole unit through the loose protection case . . . and replace it with a new or reconditioned barrel. Mathews Hydrants offer your community many other worthwhile advantages, too.
Write for complete information.
MATHEWS HYDRANTS
400 CHESTNUT STREET, PHILADELPHIA, PA.
ESTABLISHED IN 1903
Made by R.D. WOOD Company
MANUFACTURERS OF SAND SPUN PIPE (CENTRIFUGALLY CAST IN SAND MOLDS) AND R. D. WOOD GATE VALVES

CLASSIFIED DIRECTORY OF ADVERTISEMENTS

Page

AIR CONDITIONING EQUIPMENT.
Worthington Pump and Machinery Corp. ... vi

AIR COMPRESSORS.
Worthington Pump and Machinery Corp. ... vi

ASBESTOS CEMENT PIPE.
Johns-Manville ... v

BRASS GOODS.
(See also Pipe, Brass.)
Cement Lined Pipe Co. ... viii
Hays Mfg. Co. ... xvii
Pierce-Perry Co. ... viii
Red Hed Mfg. Co. ... xxiv
Smith Mfg. Co., The A. P. ... xvi

CALKING MACHINERY AND TOOLS.
Smith Mfg. Co., The A. P. ... xvi

CAST IRON PIPE. (See Pipe, Cast Iron.)

CEMENT LINED PIPE. (See Pipe, Cement Lined.)

CHEMICAL FEED APPARATUS.
Builders-Providence, Inc.
Division of Builders Iron Foundry ... xii
% Proportioneers, Inc. % ... xxv
Wallace and Tiernan Co., Inc. ... xx

CHLORINATORS.
Builders-Providence, Inc.
Division of Builders Iron Foundry ... xii
% Proportioneers, Inc. % ... xxv
Wallace and Tiernan Co., Inc. ... xx

CLAMPS, RIVER.
Dresser Mfg. Co. ... Following front cover

CLEANING WATER MAINS.
Flexible Sewer Rod Equipment Co. ... xxii
National Water Main Cleaning Co. ... viii

COCKS, CURB AND CORPORATION.
Hays Mfg. Co. ... xvii
Pierce-Perry Co. ... viii
Red Hed Mfg. Co. ... xxiv
Smith Mfg. Co., The A. P. ... xvi

CONCRETE PIPE. (See Pipe, Concrete.)

CONDENSERS.
Worthington Pump and Machinery Corp. ... vi

CONTRACTORS' EQUIPMENT.
Morris Machine Works ... xviii
Worthington Pump and Machinery Corp. ... vi

CONSTRUCTION EQUIPMENT.
Edson Corp., The ... xxi

CONSTRUCTION AIR TOOLS.
Worthington Pump and Machinery Corp. ... vi

CONTRACTORS.
Hughes, Edward F. ... iii
National Water Main Cleaning Co. ... viii
Reppucci, C. & Sons, Inc. ... iii

COUPLINGS, FLEXIBLE PIPE.
Dresser Mfg. Co. ... Following front cover

CURB BOXES.
Hays Mfg. Co. ... xvii

CLASSIFIED DIRECTORY OF ADVERTISEMENTS *(Continued)*

Page

DIAPHRAGMS, PUMP.
Edson Corp., The ... xxi
% Proportioneers, Inc. % ... xxv

ENGINEERS.
Bailey, Howard E. ... ii
Barbour, Frank A. ... ii
Barrows, H. K. ... ii
Crosby, Irving B. ... ii
Ellsworth, Samuel M. ... ii
Fay, Spofford & Thorndike ... ii
Knowles, Morris, Inc. ... ii
Metcalf & Eddy ... ii
Newsom & Aldrich ... ii
Pirnie, Malcolm ... iii
Pitometer Co. ... iii
Potts, Clyde ... ii
Weston & Sampson ... iii
Whitman & Howard ... iii

ENGINES. (See Pumps and Pumping Engines.)

EQUIPMENT. (See Contractors' Equipment.)

ERECTORS, WATER WORKS AND POWER MACHINERY.
Turbine Equipment Co. ... xix

FEED WATER FILTERS.
Ross Valve Mfg. Co. ... xxiii

FEED WATER HEATERS.
Worthington Pump and Machinery Corp. ... vi

FILTRATION PLANT EQUIPMENT.
Builders-Providence, Inc.
Division of Builders Iron Foundry ... xii
Morris Machine Works ... xviii
Ross Valve Mfg. Co. ... xxiii
Wallace and Tiernan Co., Inc. ... xx

FLEXIBLE JOINTS.
U. S. Pipe and Foundry Co ... Facing back cover

FLAP VALVES.
Eddy Valve Co. ... xiv

FURNACES, ETC.
Atlas Mineral Products Co. ... xv
Leadite Co., The ... Back cover
Smith Mfg. Co., The A. P. ... xvi

GATE VALVES. (See Valves.)

HOSE, SUCTION AND CONDUCTION.
Edson Corp., The ... xxi

HYDRANTS, FIRE.
Eddy Valve Co. ... xiv
Kennedy Valve Mfg. Co. ... xiii
Ludlow Valve Mfg Co. Inc., The ... ix
Rensselaer Valve Co. ... xxvi
Ross Valve Mfg. Co. ... xxiii
Smith Mfg. Co., The A. P. ... xvi
Wood, R. D. Co. ... xxviii

HYDRANT PUMPS.
Edson Corp., The ... xxi

INSTRUMENTS. (See Water Works Instruments.)

LEAD.
National-Boston Lead Co. ... xv

LEAD PIPE. (See Pipe, Lead.)

LEAD WOOL.
National-Boston Lead Co. ... xv

CLASSIFIED DIRECTORY OF ADVERTISEMENTS *(Continued)*

LEAK FINDERS. Page
Pitometer Co. iii
Edson Corp., The xxi

METERS, WATER AND OIL.
Builders-Providence, Inc.
Division of Builders Iron Foundry xii
Hersey Mfg. Co. iv
Neptune Meter Co. vii
Pitometer Co. iii
Pittsburgh Equitable Meter Co Following front cover
Worthington Pump and Machinery Corp. vi

METER COUPLINGS.
Ford Meter Box Co. xvi

METERS (VENTURI TYPE).
Builders-Providence, Inc.
Division of Builders Iron Foundry xii

METER BOXES.
Ford Meter Box Co. xvi

METER TESTERS.
Ford Meter Box Co. xvi

OIL ENGINES, DIESEL.
Fairbanks-Morse & Co. xi
Worthington Pump and Machinery Corp. vi

PACKING.
H. D. Jackson iii

PIPE, BRASS.
Pierce-Perry Co. viii

PIPE, CAST IRON (AND FITTINGS).
Builders-Providence, Inc.
Division of Builders Iron Foundry xii
Cast Iron Pipe Research Assn. xxxi
Donaldson Iron Co. xvi
U. S. Cast Iron Pipe and Foundry Co. Facing back cover
Warren Foundry and Pipe Corp. xxi
Wood, R. D. Co. xxviii

PIPE, CEMENT LINED.
Cement Line Pipe Co viii
Eureka Pipe Co., Inc. viii

PIPE, CONCRETE.
Lock Joint Pipe Co. Facing front cover

PIPE CUTTING MACHINES.
Smith Mfg. Co., The A. P. xvi

PIPE JOINTING MATERIAL.
Atlas Mineral Products Co. xv
Hydraulic Development Co. x
Leadite Co., The Back cover

PIPE, LEAD.
National-Boston Lead Co. xv

PIPE LINING.
Wailes Dove-Hermiston xxii

PIPE, TRANSITE.
Johns-Manville v

PIPE, WROUGHT IRON AND STEEL.
Pierce-Perry Co. viii

PLUG VALVES.
Eddy Valve Co. xiv

CLASSIFIED DIRECTORY OF ADVERTISEMENTS *(Continued)*

PITOMETERS. Page
Pitometer Co. iii

PORTABLE AIR COMPRESSORS. (See Air Compressors.)

PRESSURE REGULATORS.
Ross Valve Mfg. Co. xxiii

PROVERS, WATER.
Pittsburgh Equitable Meter Co. ..... Following front cover

PUMPS AND PUMPING ENGINES.
Edson Corp., The xxi
Fairbanks-Morse & Co. xi
Morris Machine Works xviii
Ross Valve Mfg. Co. xxiii
Turbine Equipment Co. xix
Wood, R. D. Co. xxviii
Worthington Pump and Machinery Corp. vi

RATE CONTROLLERS, AND GAUGES.
Builders-Providence, Inc.
Division of Builders Iron Foundry xii

SHEAR GATES.
Eddy Valve Co. xiv

SLEEVES, PIPE LINE REPAIR.
Dresser Mfg. Co. ..... Following front cover

SLEEVES, RIVER.
Dresser Mfg. Co. ..... Following front cover

SLEEVES AND VALVES, TAPPING.
Eddy Valve Co. xiv
Ludlow Valve Mfg. Co. Inc., The ix
Rensselaer Valve Co. xxvi
Smith Mfg. Co., The A. P. xvi

SUPPLIES AND TOOLS.
Hays Mfg. Co. xvii
Leadite Co., The ..... Back cover
Pierce-Perry Co. viii
Smith Mfg. Co., The A. P. xvi

TAPPING MACHINES.
Hays Mfg. Co. xvii
Red Hed Mfg. Co. xxiv
Smith Mfg. Co., The A. P. xvi

TAPPING SLEEVES. (See Sleeves and Valves, Tapping.)

VALVE BOXES.
Eddy Valve Co. xiv
Ford Meter Box Co. xvi
Rensselaer Valve Co. xxvi
Wood, R. D. Co. xxviii

VALVE INSERTING MACHINES.
Smith Mfg. Co., The A. P. xvi

VALVES, GATE.
Eddy Valve Co. xiv
Kennedy Valve Mfg. Co. xiii
Rensselaer Valve Co. xxvi
Smith Mfg. Co., The A. P. xvi
Wood, R. D. Co. xxviii

VALVES, REGULATING.
Ross Valve Mfg. Co. xxiii

WATER WASTE DETECTION.
Pitometer Co. iii

WELL CONNECTIONS.
Red Hed Mfg. Co. xxiv

WROUGHT IRON PIPE. (See Pipe, Wrought Iron and Steel.)

Plans made NOW mean jobs ready THEN

Everybody knows that war has made it necessary to postpone repairs, replacements and extensions to the water supply, gas and sewerage systems of this country. This growing backlog of deferred construction already represents millions of man-hours of employment for returning soldiers and laid-off war workers.

It is the patriotic obligation of the managers of these public utilities to see that detailed plans are prepared now so that the work can start without delay when the war is over. Every consulting engineer and engineering department should be working overtime if necessary until the last plan is ready. Nobody questions that these indispensable public services should start needed construction at the earliest possible moment.

Water supply, gas and sewage works construction gives quick employment to many thousands of men, locally and elsewhere. It will help Industry get clicking at a time when many plants will have to convert to peacetime production. Seven industries — large employers of labor — are involved in the production, transportation and laying of cast iron pipe alone.

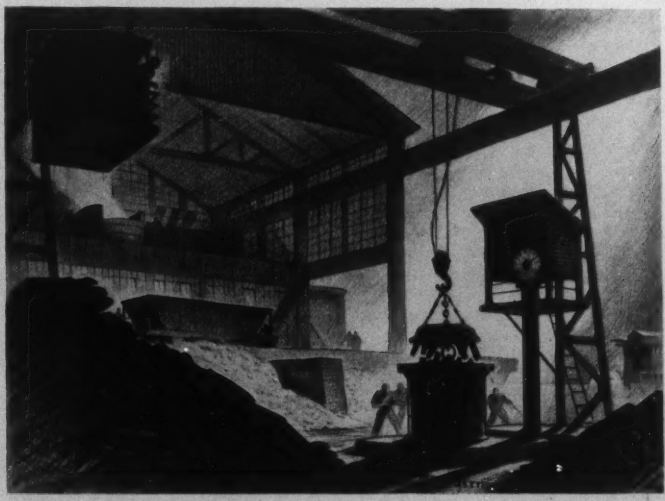
Preparing working plans and specifications now will not interfere with the winning of the war. But it will go a long way towards the right sort of welcome for our returning soldiers. Victory arches and a band at the station, yes — but also, *jobs*.

Any of the members of this Association will furnish promptly information and advice in the preparation of specifications taking full advantage of the greater economy and efficiency of cast iron pipe made in accordance with the new A.S.A. Law of Design — pipe scientifically designed for your specific service requirements.

CAST IRON PIPE

From the ground up

Few pipe buyers realize the extent of the inspections, analyses and tests involved in our step-by-step control of the quality of Super-de Lavaud Cast Iron Pipe. Production controls *start* almost literally from the ground up with the inspection, analysis and weighing of raw materials—*continue* with the constant control of cupola operation and analysis of the metal from the forehearth; the synchronization of the rotational speed of the mold, travel of the casting machine and pouring rate of the iron entering the mold; the automatic temperature controls of the heat-treating furnaces — and *end* with inspections and a series of acceptance and routine tests of the finished pipe. You can get this pipe promptly if you can obtain the necessary priorities.



Weighing the charge for a cupola at one of our plants — drawn by Hugh Ferriss.

UNITED STATES PIPE & FOUNDRY CO.

General Offices: Burlington, N. J. ***Plants and Sales Offices Throughout the U. S. A.***

The Journal of the New England Water Works Association

is a quarterly publication, containing the papers read at the meetings, together with reports of the discussions. Many of the contributions are from writers of the highest standing in their profession. It affords a convenient medium for the interchange of information and experience between the members, who are so widely separated as to find frequent meetings an impossibility. Its success has more than met the expectation of its projectors; there is a large and increasing demand for its issues, and every addition to its subscription list is a material aid in extending its field of usefulness.

All members of the Association receive the JOURNAL for two dollars per annum which sum is included in their annual dues; to all others the subscription is four dollars per annum.

TO ADVERTISERS

THE attention of parties dealing in goods used by Water Departments is called the JOURNAL OF THE NEW ENGLAND WATER WORKS ASSOCIATION as an advertising medium.

Its subscribers include the principal WATER WORKS ENGINEERS and CONTRACTORS in the United States. The paid circulation is **1000** COPIES.

Being filled with original matter of the greatest interest to Water Works officials it is PRESERVED and constantly REFERRED TO BY THEM, and advertisers are thus more certain to REACH BUYERS than by any other means.

The JOURNAL is not published as a means of revenue, advertisements being inserted solely to help meet the large expense of publication.

ADVERTISING RATES

One page, one year, four insertions	Eighty Dollars
One-half page, one year, four insertions	Fifty-six Dollars
One-fourth page, one year, four insertions	Thirty-six Dollars
Card size, one year, four insertions	Twelve Dollars
One page, single insertion	Forty Dollars
One-half page, single insertion	Thirty Dollars
One-fourth page, single insertion	Twenty Dollars

Size of page, 4½ x 7½ net.

A sample copy will be sent on application.

For further information, address the Advertising Agent,

MISS MILDRED LIGHTBODY,
613 STATLER BUILDING,
BOSTON, MASS.

LEADITE

Trade Mark Registered U.S. Pat. Office

COSTS ARE REDUCED WHEN *LEADITE* IS USED

Of course, the greatest advantage in using LEADITE, is, that it makes a good, tight joint,—and thus reduces leakage to a minimum,—but LEADITE also offers the following advantages, which are worthy of serious consideration: Saves caulking expenses—Reduces cost of digging large bell-holes —Saves in cost of material—Reduces time required for pumping "wet trenches"—Saves time in preparation—Saves time in handling on the job—Saves in freight and hauling charges.

Another point, LEADITE saves "interest charges" by speeding up the completion of the water line.

The true value of LEADITE is best indicated by the fact that it has been used on THOUSANDS OF MILES of Water Mains,—all over this Country, as well as in many Overseas Countries.

The Pioneer self-caulking material for c. i. pipe,
Tested and used for over 40 years,
Saves at least 75%.

THE LEADITE COMPANY

Girard Trust Company Building — Philadelphia, Penna.